

AECOM

Date:

May 31/12

Land Parcel/Site ID:

der 1138
3203
3143

Page 3 of 4

Other General Comments Regarding the Study Area:

- low level water
- Fish observed (cyprinidae)
- Channelized straight stream in field zone
- Some section have a high density of vegetation in stream
- rock pile

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
RS 1140	FACING South Thompson der 3143 - ASA	1152	FACING North
1141+42	FACING West Thompson der 3143 - ASA		
1143	FACING West (R5ST)		
1144	FACING east (R5ST)	1153	Rock Pile (corner)
1145	Culvert Drain across Thompson line (R5ST)	1154	Culvert #3
1146	From culvert west der 3203	1155	FACING North From (R5END)
1147	From culvert east der 3203	1156	FACING South From (R5END)
1148	FACING West Close the corner		
1149	FACING North Between 2 field		
1150	on #1138 - v/s culvert #2		
1151	FACING South Close corner		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

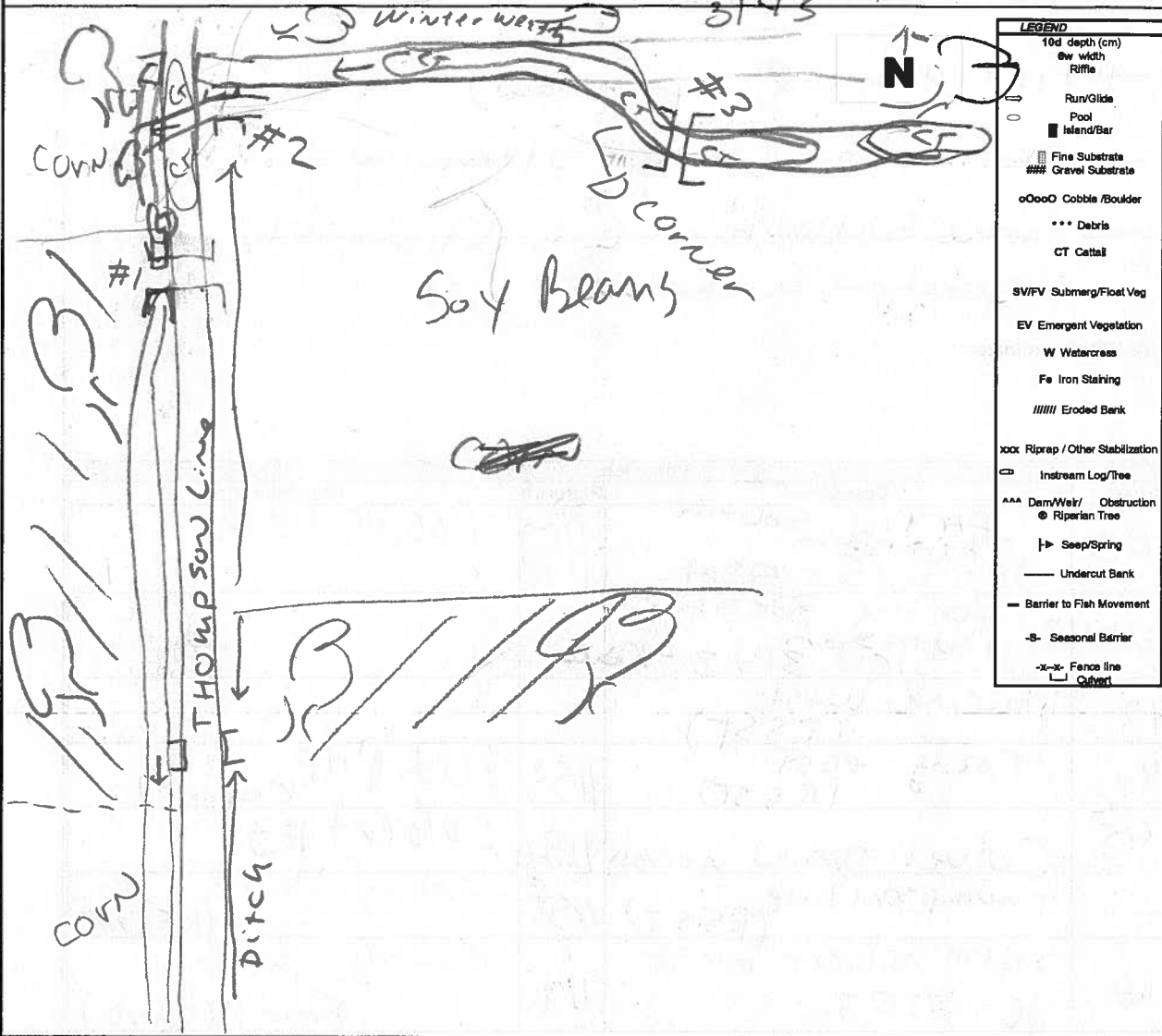
Bluewater

Land Parcel#

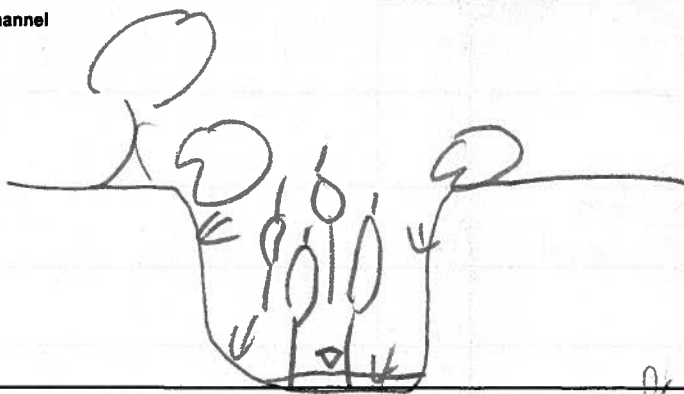
001138

Site ID

25



Horizontal View of Channel



Initial QA/QC By:

L. Bernkey

Date:

June 4, 2012

Technical QA/QC By:

Stutku

Date:

Oct 2/12

Water Bodies Assessment Field Collection Form

JCR 3143 → ASA

AECOM		Page 1 of 4	
General Information			
Study Area: <u>Jericho</u>	<u>Goshen</u>	<u>Bluewater</u>	Land Parcel# <u>Jer 3143</u> Site ID: <u>RS.10</u>
Date: <u>May 31/12</u>	Start time: <u>10:30</u>	End Time: <u>11:00</u>	
Weather Conditions: <u>Sun + Bkoul</u>		Field Crew: <u>CHARDINE</u> <u>S. DANEICHE</u>	
		Field Notes By: <u>S. DANEICHE</u>	
Site Location			
<u>EAST OF Kinnard Rd.</u> <u>NHS OF Thompson Wne</u>			
UTM Co-ordinates (continue on page 3 if necessary)			
Easting: <u>423472</u>	Northing: <u>4778491</u>	Description: <u>RS.10ST</u>	
Easting: <u>423460</u>	Northing: <u>4778241</u>	Description: <u>RS.10 HIB</u>	
Easting:	Northing:	Description:	
Easting:	Northing:	Description:	
Surrounding Landuse		Type of Watercourse	
Residential ☐	Meadow ☐	Intermittent ☐	Channelized ☒
Agriculture ☒	Wetland ☐	Permanent ☒	Natural Channel ☐
Forest ☐	Livestock ☐	Ephemeral ☐	
Other ☐			
Description: <u>Crops</u> <u>corn and Soy Beans</u>		Description: <u>-</u>	
Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow)			
<u>NONE observed</u>			
Is any portion of the water body underground or not as mapped? <u>Y / N</u>			
If Yes describe:			
GPS Coordinate: Easting - Northing - Description-			
Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)			
<u>Flat</u>			
In-Situ Water Quality		Ground Water and Seepage Indicators	
WT (°C): <u>15</u>	AT (°C): <u>16.0</u>	Watercress ☐	Bank Seepage ☐
pH: <u>7.67</u>	Cond (s/cm): <u>632</u>	Iron Staining ☐	None ☒
D.O. (mg/L) <u>5.87</u>		Bubbling ☐	
Water Clarity: <u>Clear</u> ☒	Turbid ☐	Other ☐	
Water Colour: <u>Transp.</u>		Details:	
Notes: <u>~75m on north of Thompson</u>			

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): 150m			Bank Stability:																	
Channel Dimensions			<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): 1.25	Mean Wetted Depth (m): 0.20	Description: vegetated and clean on bottom																		
Mean Bankfull Width (m): 2.50	Mean Bankfull Depth (m): 0.90																			
Mean Top of Bank Width (m): 6.00	Mean Top of Bank Depth (m): 3.50																			
Flow Description: (high or low flow conditions, stagnant, etc) moderate flow																				
Habitat			Morphological Structure (%)																	
Substrate (<=>) Description Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus Si >> Co			<table border="1" style="width: 100%; text-align: center;"> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td></td> <td></td> <td>60</td> <td>40</td> </tr> </table>			Pool	Riffle	Run	Flat			60	40							
Pool	Riffle	Run	Flat																	
		60	40																	
			Notes: _____																	
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None															
			2																	
					Undercut Banks															
					Average Depth: (% Cover)															
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																				
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.) algae only																				
Canopy Cover (% closed cover):			Types of Cover (% cover)																	
100-90%	☐	30-1%	☒	Trees	5															
90-60%	☐	0%	☐	Shrubs	5															
60-30%	☐			Grasses																
			Man-made structures																	
			Herbaceous																	
			Other																	
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																				
Notes: (vegetation species, types of structures) Elm, Willow Shrubs																				
Riparian Vegetation			Obstructions to Fish Passage																	
Width and Description of riparian vegetation: LB - 1.5m	RB - 1.5m		None Observed ☒																	
Grasses, SALT SP Shrubs		Man-Made ☐																		
		Natural ☐																		
		Low Flow Barrier ☐																		
Description of Barrier:																				
Height of Barrier (m)																				
GPS Coordinates:																				

Water Bodies Assessment Field Collection Form

RS.10

AECOM

Date:

MAY 31/12

Land Parcel/Site ID:

JCR 3142
JCR 3143

Page 3 of 4

Other General Comments Regarding the Study Area:

- observed so many cyp. nidules.
 - ASH ON 3143 (ROE-NO)
 - Straight Stream in Field Zone
 - may be excavated last year to remove vegetation in stream
- rock pile
on 3142

Additional UTM Coordinates:

Photo log			
Picture #	Description	Picture #	Description
1132	FACING North From Thompson line		
1133	FACING South From Thompson line		
1134	Culvert under Thompson Line From DIS		
1135	hibernacula		
1136			
1137	FACING North From RS.14 ST		
1138	" South		
1139	ASH To east		

AECOM

General information

Study Area: Jericho Goshen Bluewater Land Parcel# JER1018 Site ID: R5.8-d
 Date: May 24/12 Start time: 15:00 End Time: 16:00
 Weather Conditions: 20°C Field Crew: S. Aiken - S. DRAICHE
SUNNY / DAY with light wind Field Notes By: S. Aiken

Site Location

located on West of Army CAMP Rd. by trail through the forest

UTM Co-ordinates (continue on page 3 if necessary)

Easting: 422586 Northing: 4783308 Description: R5.8 ST
 Easting: 422645 Northing: 4783219 Description: R5.8 BET
 Easting: Northing: Description:
 Easting: Northing: Description:

Surrounding Landuse

Residential ☐ Meadow ☐
 Agriculture ☐ Wetland ☐
 Forest ☒ Livestock ☐
 Other ☐

Description:

deciduous-maple dominated

Type of Watercourse

Intermittent ☐ Channelized ☐
 Permanent ☒ Natural Channel ☒
 Ephemeral ☐

Description:

natural meandering watercourse in forest

Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow)

NONE

is any portion of the water body underground or not as mapped? Y/N
 If Yes describe:

GPS Coordinate: Easting -

Northing -

Description-

Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)

Sloping towards channel

In-Situ Water Quality

WT (°C): 20.8 AT (°C): 29
 pH: 8.41 Cond (µs/cm): 654
 D.O. (mg/L): 5.89
 Water Clarity: Clear ☒ Turbid ☐

Water Colour: none

Notes:

taken near bridge, filamentous algae

Ground Water and Seepage Indicators

Watercress ☐ Bank Seepage ☐
 Iron Staining ☐ None ☒
 Bubbling ☐
 Other ☐

Details:

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): ~100			Bank Stability:																	
Channel Dimensions			<table border="1" style="width:100%; text-align: center;"> <tr> <th></th> <th>Stable</th> <th>Slightly unstable</th> <th>Moderately unstable</th> <th>Unstable</th> </tr> <tr> <td>Left Bank</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☐	☐	☒	☐	Right Bank	☐	☒	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☐	☐	☒	☐																
Right Bank	☐	☒	☐	☐																
Mean Wetted Width (m): 0.65	Mean Wetted Depth (m): 0.15	Description: exposed tree roots LB, evidence of erosion + scouring																		
Mean Bankfull Width (m): 3.40	Mean Bankfull Depth (m): 0.90																			
Mean Top of Bank Width (m): 4.50	Mean Top of Bank Depth (m): 1.25	Flow Description: (high or low flow conditions, stagnant, etc) low flow conditions, stream is flowing, moderate gradient																		
Habitat																				
Substrate (<=>)		Morphological Structure (%)																		
Description Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus Co > Bo > Gr > Si		<table border="1" style="width:100%; text-align: center;"> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td></td> <td>50</td> <td>50</td> <td></td> </tr> </table>				Pool	Riffle	Run	Flat		50	50								
		Pool	Riffle	Run	Flat															
	50	50																		
		Notes:																		
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None	Undercut Banks														
	15	20	60			Average Depth: 1.0 m (% Cover) 5														
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100% *Aquatic Vegetation Species Present (algae, submergent, emergent etc.) algae, some areas of built up woody debris																				
Canopy Cover (% closed cover):																				
100-90% ☒ 90-60% ☐ 60-30% ☐		30-1% ☐ 0% ☐																		
		Types of Cover (% cover) Trees 100 Shrubs _____ Grasses _____ Herbaceous _____ Man-made structures _____ Other _____																		
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100% Notes: (vegetation species, types of structures) large maple forest																				
Riparian Vegetation																				
Width and Description of riparian vegetation: LB - >5m		RB - >5m																		
		deciduous forest																		
Overhanging Vegetation Present Y/N (N)		% Overhanging Vegetation:																		
Description of Overhanging Vegetation:																				
Obstructions to Fish Passage																				
None Observed ☒		Man-Made ☐		Natural ☐ Low Flow Barrier ☐																
Description of Barrier:																				
Height of Barrier (m)		GPS Coordinates:																		

AECOM

Date:

24 MAY 2012

Land Parcel/Site ID:

JER1018

Page 3 of 4

RS, 8

Other General Comments Regarding the Study Area:

- cyprinids observed at bridge
- natural meandering stream in forest dominated by cobble & boulder substrates
- Banks Are eroded : LB 25% - RB 25%

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
47	downstream in forest		
48	upstream in forest		
49	view of erosion		
50	view of erosion		

Water Bodies Assessment Field Collection Form

AECOM

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Watercourse Sketch

Study Area:

Jericho

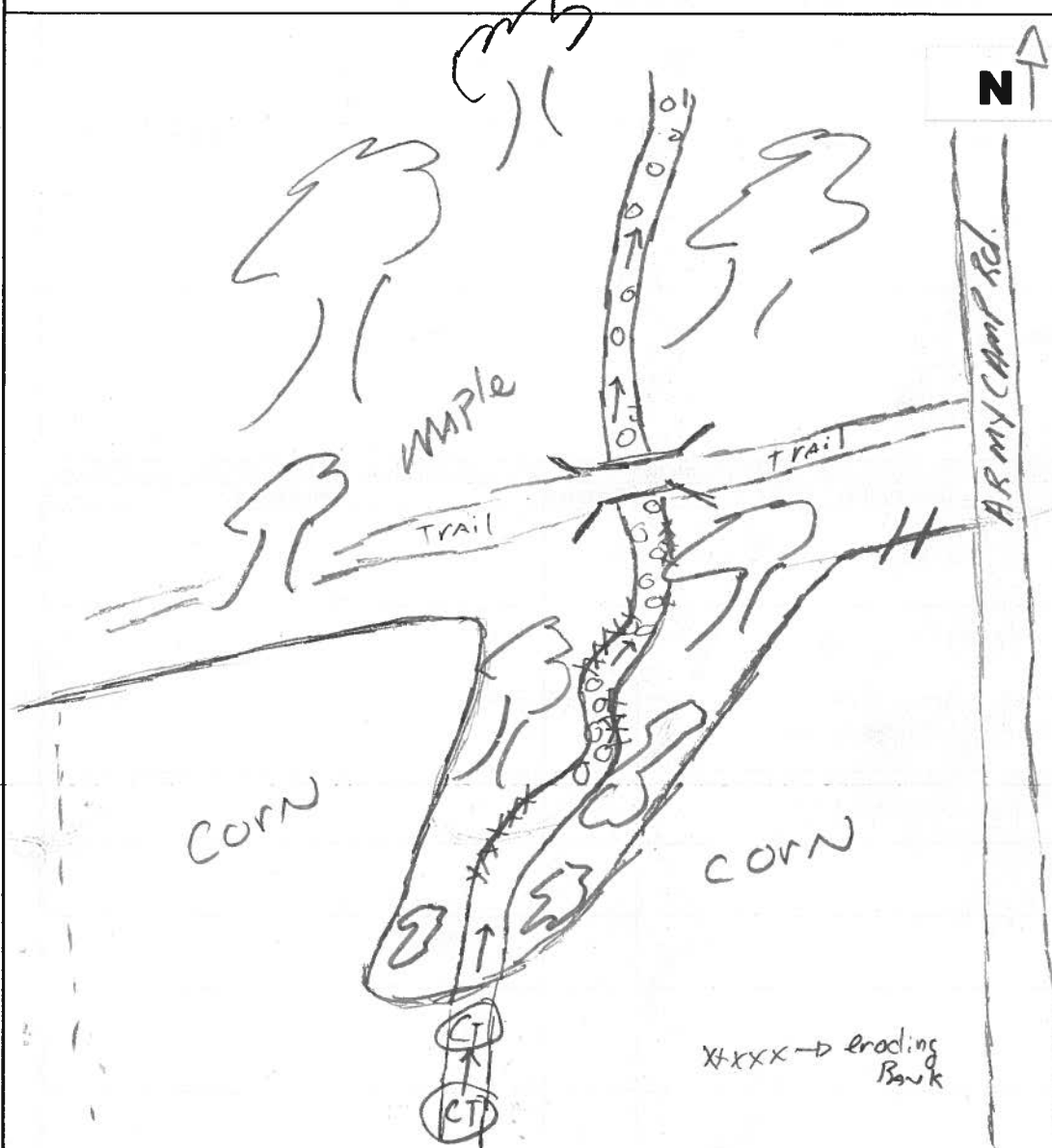
Goshen

Bluewater

Land Parcel# JER 1018

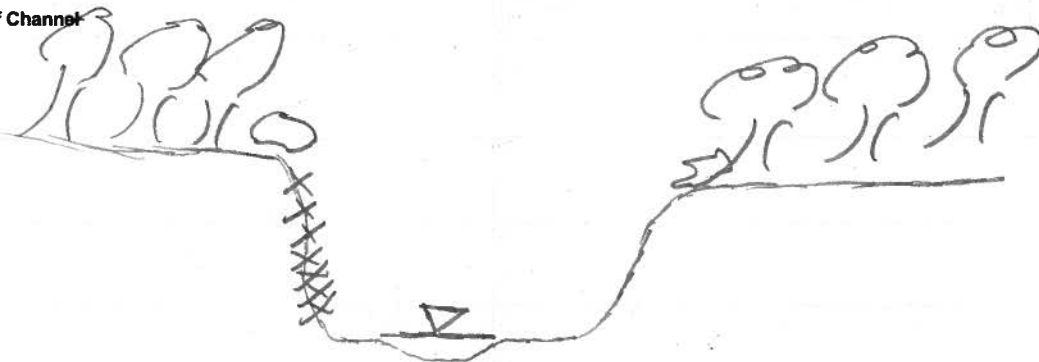
Site ID

RS.8



LEGEND	
→	10d depth (cm) 5w width Riffle
→	Run/Glide
○	Pool
■	Island/Bar
●	Fine Substrate
***	Gravel Substrate
○●○○○	Cobble/Boulder
***	Debris
CT	Cattail
SV/FV	Submerged/Vegetation
EV	Emergent Vegetation
W	Watercress
Fe	Iron Staining
//////	Eroded Bank
xxx	Riprap / Other Stabilization
—	Instream Log/Tree
AAA	Dam/Weir/Obstruction
●	Riparian Tree
→	Seep/Spring
—	Undercut Bank
—	Barrier to Fish Movement
-S-	Seasonal Barrier
-x-x-	Fence line
△	Culvert

Horizontal View of Channel



Initial QA/QC By: L Bentley

Date: May 30, 2012

Technical QA/QC By: M

Date: 08/16/12

Water Bodies Assessment Field Collection Form

AECOM

Page 1 of 4

General Information

Study Area: Jericho Goshen Bluewater Land Parcel# JER1018-JER1001 Site ID: RS.8-6

Date: 24 MAY 2012 Start time: 15:00 End Time: 16:00

Weather Conditions: 30°C Full sunny day and light wind Field Crew: S. AITKEN - S. DAVAICHE
Field Notes By: S. AITKEN

Site Location

located West of ARMY CAMP Rd.

UTM Co-ordinates (continue on page 3 if necessary)

Easting: 422645 Northing: 47832099 Description: RS.1 BET

Easting: 422762 Northing: 4782739 Description: RS.8 End

Easting: Northing: Description:

Easting: Northing: Description:

Surrounding Landuse

Residential ☐ Meadow ☐
Agriculture ☒ Wetland ☐
Forest ☐ Livestock ☐
Other ☐

Description:

Soybean crop

Type of Watercourse

Intermittent ☐ Channelized ☒
Permanent ☒ Natural Channel ☐
Ephemeral ☐

Description:

channel starting to naturalize, slumping creating meanders

Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow)

NONE

Is any portion of the water body underground or not as mapped? Y / ☒ N

If Yes describe:

GPS Coordinate: Easting -

Northing -

Description -

Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)

Very Flat And Sloping between two fields

In-Situ Water Quality

WT (°C): 23 AT (°C): 30
pH: 8.50 Cond (µs/cm): 600
D.O. (mg/L): 9.35

Water Clarity: Clear ☐ Turbid ☒

Water Colour:

Notes:

Slightly turbid
WT taken in stagnant
area w algae

Ground Water and Seepage Indicators

Watercress ☐ Bank Seepage ☐
Iron Staining ☐ None ☒
Bubbling ☐
Other ☒

Details:

Water speedwell
throughout channel

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): <u>~400</u>			Bank Stability:																	
Channel Dimensions			<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): <u>0.95</u>	Mean Wetted Depth (m): <u>0.15</u>		Description: <u>well vegetated</u>																	
Mean Bankfull Width (m): <u>1.30</u>	Mean Bankfull Depth (m): <u>0.45</u>																			
Mean Top of Bank Width (m): <u>7.5</u>	Mean Top of Bank Depth (m): <u>2.0</u>																			
Flow Description: (high or low flow conditions, stagnant, etc) <u>low flow, water stagnant</u>																				
Habitat																				
Substrate (< = >)			Morphological Structure (%)																	
Description Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus <u>Si</u>			<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Pool</td> <td>Riffle</td> <td>Run</td> <td>Flat</td> </tr> <tr> <td><u>10</u></td> <td></td> <td><u>90</u></td> <td></td> </tr> </table>			Pool	Riffle	Run	Flat	<u>10</u>		<u>90</u>								
			Pool	Riffle	Run	Flat														
<u>10</u>		<u>90</u>																		
			Notes:																	
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None	Undercut Banks														
				<u>100</u>		Average Depth: (% Cover)														
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100% *Aquatic Vegetation Species Present (algae, submergent, emergent etc.) <u>cattails, water speedwell, floating algae</u>																				
Canopy Cover (% closed cover):			Types of Cover (% cover)																	
100-90% ☐	30-1% ☒		Trees <u>5</u>	Shrubs <u>15</u>	Man-made structures															
90-60% ☐	0% ☐		Grasses	Herbaceous	Other															
60-30% ☐																				
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100% Notes: (vegetation species, types of structures) <u>CATTAIL, Algae</u>																				
Riparian Vegetation																				
Width and Description of riparian vegetation: LB - <u>30m cum</u>			RB - <u>5m cum</u>																	
Overhanging Vegetation Present ☒ N			% Overhanging Vegetation: <u>5</u>																	
Description of Overhanging Vegetation: <u>grasses</u>																				
Obstructions to Fish Passage																				
None Observed ☐	Man-Made ☐	Natural ☐	Low Flow Barrier ☒																	
Description of Barrier: <u>choked with cattails</u>																				
Height of Barrier (m)			GPS Coordinates:																	

Water Bodies Assessment Field Collection Form

AECOM

Date:

24 MAY 2012

Land Parcel/Site ID:

JER 1018
JER 1001 / 65.8

Page 3 of 4

Other General Comments Regarding the Study Area:

- creek is driven through
- cattail choked channel
- green frogs observed
- altered channel is starting to naturalize, slumping islands in stream
- LB is littered w/ old farm equipment - very rusty

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
51	view of channel where driven through		
52	aquatic plant		
53	facing upstream		
54	frog		
55	overview - v/s		
56	D/S - end		
57	v/s end		

Water Bodies Assessment Field Collection Form

AECOM

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Watercourse Sketch

Study Area:

Jericho

Goshen

Bluewater

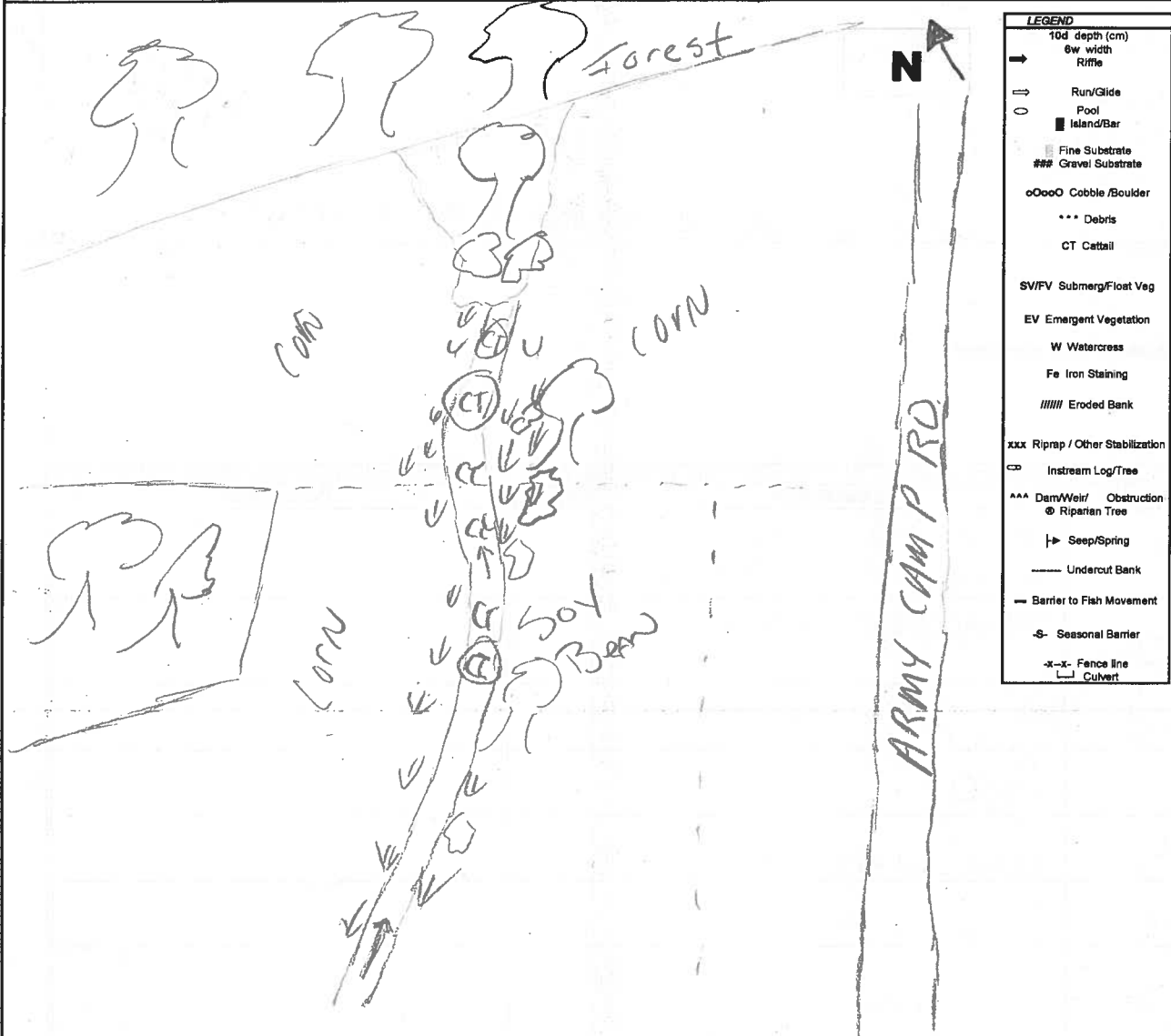
Land Parcel#

JER1018

Site ID

R5.8

JER1001



Horizontal View of Channel



Initial QA/QC By:

L. Bentley

Date:

May 30, 2012

Technical QA/QC By:

N/L

Date:

31st June 2012

Water Bodies Assessment Field Collection Form

R6.18B

Page 1 of 4

AECOM

General Information

Study Area: Jericho Goshen Bluewater Land Parcel# 3414 Site ID: R6.18-JER3414(ASA)

Date: MAY 17/2012 Start time: 09:57 AM End Time: 10:25

Weather Conditions:

Sunny, 12°C

Field Crew: S. LOHINES J. EPP

Field Notes By: S. LOHINES.

Site Location

flows north from JURA

UTM Co-ordinates (continue on page 3 if necessary)

Easting: 427092 Northing: 4773147 Description: ASA point & H₂O chan

Easting: Northing: Description:

Easting: Northing: Description:

Easting: Northing: Description:

Surrounding Landuse
Residential ☐
Agriculture ☒
Forest ☒
Other ☐
Meadow ☐
Wetland ☐
Livestock ☐

Description:

forest riparian then
now crop.

Type of Watercourse
Intermittent ☐
Permanent ☒
Ephemeral ☐
Channelized ☐
Natural Channel ☒

Description:

possibly straightened
historically.

Notes: (Include any inputs into the system i.e. tile drainage, seepages, overland flow)

tile drain input w/s + d/s of ASA location.

Is any portion of the water body underground or not as mapped? Y / N

If Yes describe:

GPS Coordinate: Easting -

Northing -

Description -

Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)

gentle slope to watercourse

In-Situ Water Quality

WT (°C): 10.1 °C

AT (°C): 12 °C

pH: 8.0

Cond (µs/cm): 755

D.O. (mg/L): 7.02

Water Clarity: Clear ☒ Turbid ☐

Water Colour:

colourless

Notes:

taken @ R6.18-JER3323.

Ground Water and Seepage Indicators

Watercress ☐ Bank Seepage ☐
Iron Staining ☐ None ☒
Bubbling ☐
Other ☐

Details:

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): <u>30m (ASA)</u>			Bank Stability:																	
Channel Dimensions			<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): <u>2.5m</u>	Mean Wetted Depth (m): <u>0.15m</u>	Description: <u>vegetated, some bare soil but not eroded</u>																		
Mean Bankfull Width (m): <u>2.8m</u>	Mean Bankfull Depth (m): <u>0.25m</u>																			
Mean Top of Bank Width (m): <u>5.0m</u>	Mean Top of Bank Depth (m): <u>2.0m</u>																			
Flow Description: (high or low flow conditions, stagnant, etc) <u>moderate flow</u>																				
Habitat																				
Substrate (<=>)		Description		Morphological Structure (%)																
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus		<u>Si > DT</u>		<table border="1" style="width: 100%; text-align: center;"> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td></td> <td></td> <td>100</td> <td></td> </tr> </table>		Pool	Riffle	Run	Flat			100								
Pool	Riffle	Run	Flat																	
		100																		
				Notes: <u>visible flows</u>																
Instream Cover (%)																				
Other <u>Detritus</u>	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None															
<u>40</u>				<u>40</u>																
					Undercut Banks															
					Average Depth: <u>/</u>															
					(% Cover) <u>/</u>															
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																				
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.) <u>attached algal + leaf litter</u>																				
Canopy Cover (% closed cover):			Types of Cover (% cover)																	
100-90% ☒	30-1% ☐	Trees <u>50</u>	Shrubs <u>50</u>	Man-made structures																
90-60% ☐	0% ☐	Grasses	Herbaceous	Other																
60-30% ☐																				
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																				
Notes: (vegetation species, types of structures) <u>elm, ash, cherry</u>																				
Riparian Vegetation																				
Width and Description of riparian vegetation: LB - <u>3m - then row crop</u>		RB - <u>3m then row crop.</u>																		
Overhanging Vegetation Present <u>Y</u> / <u>(N)</u>		% Overhanging Vegetation: <u>/</u>																		
Description of Overhanging Vegetation:																				
Obstructions to Fish Passage																				
None Observed ☒	Man-Made ☐	Natural ☐	Low Flow Barrier ☐																	
Description of Barrier: <u>none observed (ASA).</u>																				
Height of Barrier (m)		GPS Coordinates:																		

Water Bodies Assessment Field Collection Form

26.18B

ASA

AECOM

Date: MAY 7/12

Land Parcel/Site ID: 26.18-34/4 Page 3 of 4

Other General Comments Regarding the Study Area:

Water course flows north (generally) through closed canopy hedgerow adjacent to two row crop fields.
 - some exposed soil on banks, but stable
 - silty substrate w/ detritus + leaf litter overtop and attached algae predominant
 Additional UTM Coordinates: mstream cover.

Photo log

Picture #	Description	Picture #	Description
1	sheet		
2	looking u/s (south)		
3	tile input		
4	looking d/s		
5	upstream from channel		

Water Bodies Assessment Field Collection Form

26.18 B

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

Bluewater

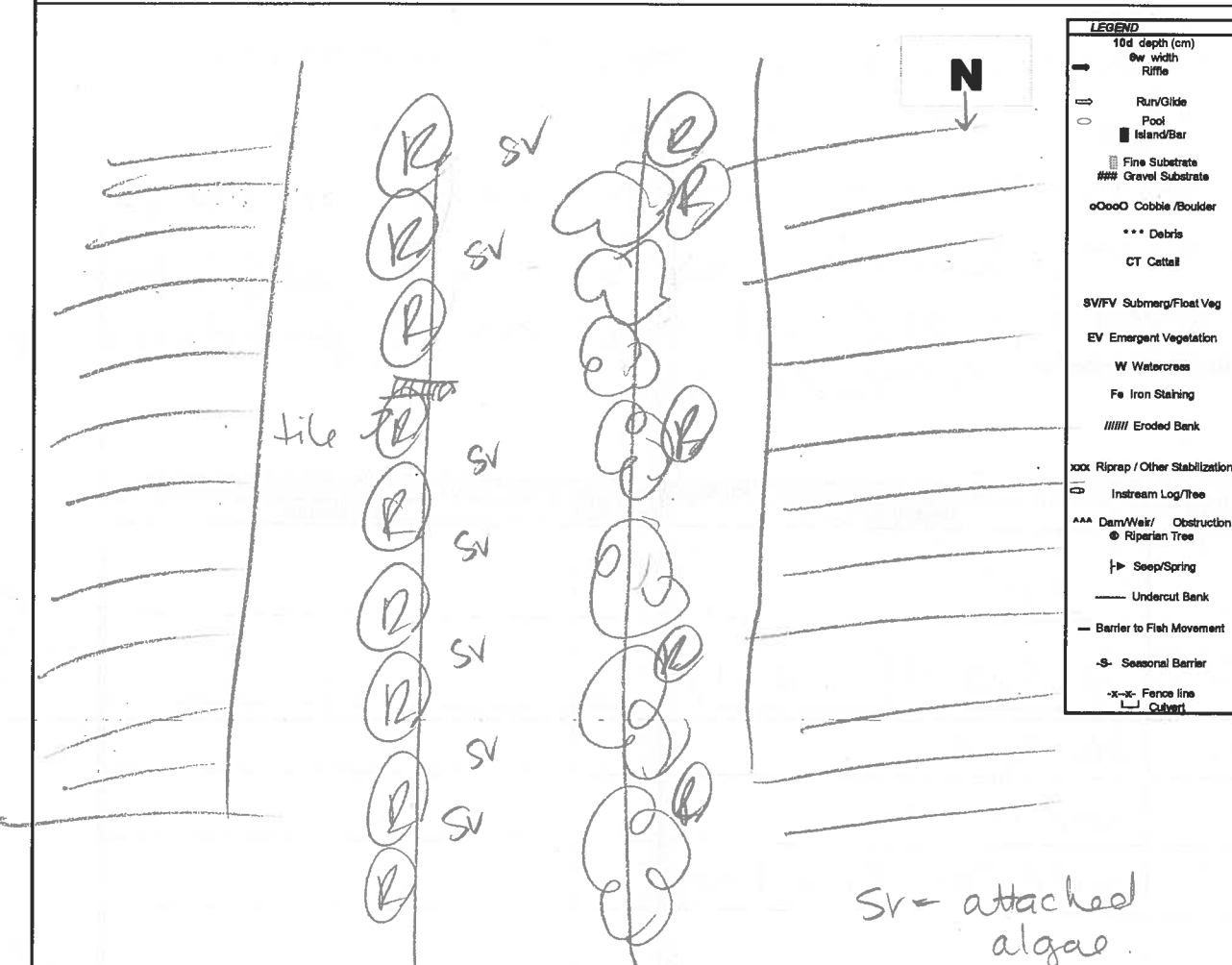
Land Parcel#

3414

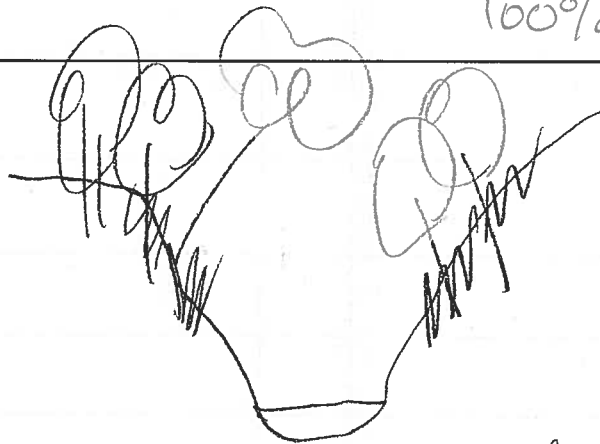
Site ID

26.18-JER3414

(ASA)



Horizontal View of Channel



Initial QA/QC By:

L. Bentley

Date: May 22, 2012

Technical QA/QC By:

Jatku Date: June 11/12

Water Bodies Assessment Field Collection Form

26.183

AECOM

Page 1 of 4

General Information

Study Area: Jericho Goshen Bluewater Land Parcel# 1021 Site ID: R6.18-JER1021

Date: MAY 17/2012 Start time: 10:25 AM End Time: 12:00 PM

Weather Conditions:

Sunny, 13°C

Field Crew: S. LOHNES J. EPP

Field Notes By: S. LOHNES

Site Location

north of ~~Jericho~~ Rd., east of Jericho
Jara

UTM Co-ordinates (continue on page 3 if necessary)

Easting: 426977	Northing: 4773268	Description: STAFF
Easting: 426941	Northing: 4773312	Description: H2O CHEN
Easting: 426037	Northing: 4773414	Description: END @ Jericho Rd.
Easting:	Northing:	Description:

Surrounding Landuse

Residential	☐	Meadow	☐
Agriculture	☒	Wetland	☐
Forest	☐	Livestock	☐
Other	☐		

Description:

row crops (corn).

Type of Watercourse

Intermittent	☐	Channelized	☐
Permanent	☒	Natural Channel	☐
Ephemeral	☐	Natural Long	☒

Description:

naturalizing w/ channelized

Notes: (Include any inputs into the system i.e. tile drainage, seepages, overland flow)

tile drain inputs + tiled R6.22

Is any portion of the water body underground or not as mapped? Y / N

If Yes describe:

GPS Coordinate: Easting -

Northing -

Description -

Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)

gentle slope from farmland crop fields

In-Situ Water Quality

WT (°C): 11.1	AT (°C): 13°C
pH: 8.07	Cond (s/cm): 743
D.O. (mg/L): 8.13	
Water Clarity: Clear ☒	Turbid ☐

Water Colour:

colourless

Notes:

taken in shaded area
w/ grasses in channel.

Ground Water and Seepage Indicators

Watercress	☐	Bank Seepage	☐
Iron Staining	☐	None	☒
Bubbling	☐		☐
Other	☐		

Details:

none observed

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): <u>900m</u>			Bank Stability:																	
Channel Dimensions			<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): <u>1.0m</u>	Mean Wetted Depth (m): <u>0.20m</u>	Description: <u>well grassed w/ shrubs</u>																		
Mean Bankfull Width (m): <u>2.5m</u>	Mean Bankfull Depth (m): <u>0.5m</u>																			
Mean Top of Bank Width (m): <u>6.0m</u>	Mean Top of Bank Depth (m): <u>2.5m</u>																			
Flow Description: (high or low flow conditions, stagnant, etc) <u>moderate flow</u>																				
Habitat																				
Substrate (<=>)		Morphological Structure (%)																		
Description: Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus <u>Sa + Si</u>		<table border="1" style="width: 100%; text-align: center;"> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td><u>10</u></td> <td></td> <td><u>90%</u></td> <td></td> </tr> </table>				Pool	Riffle	Run	Flat	<u>10</u>		<u>90%</u>								
		Pool	Riffle	Run	Flat															
		<u>10</u>		<u>90%</u>																
Notes: <u>all runs + pooled @ culvert @ Jericho</u>																				
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None															
	<u>5</u>			<u>80</u>																
Undercut Banks																				
Average Depth: (% Cover)																				
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																				
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.) <u>attached algae, grasses, woody debris w/ plant debris</u>																				
Canopy Cover (% closed cover):			Types of Cover (% cover)																	
100-90% ☐	30-1% ☐	Trees <u>10</u>	Shrubs <u>40</u>	Man-made structures																
90-60% ☐	0% ☐	Grasses	Herbaceous	Other																
60-30% ☒																				
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																				
Notes: (vegetation species, types of structures) <u>ash, hawthorn</u>																				
Riparian Vegetation																				
Width and Description of riparian vegetation: LB - <u>1m - some shrubs + small trees, grasses</u>			RB - <u>1.5m - some grasses + shrubs</u>																	
Overhanging Vegetation Present Y / N			% Overhanging Vegetation:																	
Description of Overhanging Vegetation:																				
Obstructions to Fish Passage																				
None Observed ☒ Man-Made ☐ Natural ☐ Low Flow Barrier ☐																				
Description of Barrier: <u>none obs.</u>																				
Height of Barrier (m)			GPS Coordinates:																	

AECOM

Date:

May 17/12

Land Parcel/Site ID:

R6.18-
JER 1021

Page 3 of 4

Other General Comments Regarding the Study Area:

- straightened channel - naturalizing w/ grassed banks + shrubs, some trees
- grasses provide some mstream cover w/ floating + attached algae
- grasses overhang in areas, as well as plant debris caught on wood debris

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
1	sheet	21	overview
2	looking u/s (south)	22	looking @ road
3	substrate		
4	looking d/s (north)		
5	overview (north west)		
6	H ₂ O chem		
7-14	overview		
15	snapping turtle		
16-17	overview		
18	culvert @ road		
19	looking u/s		
20	cover		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

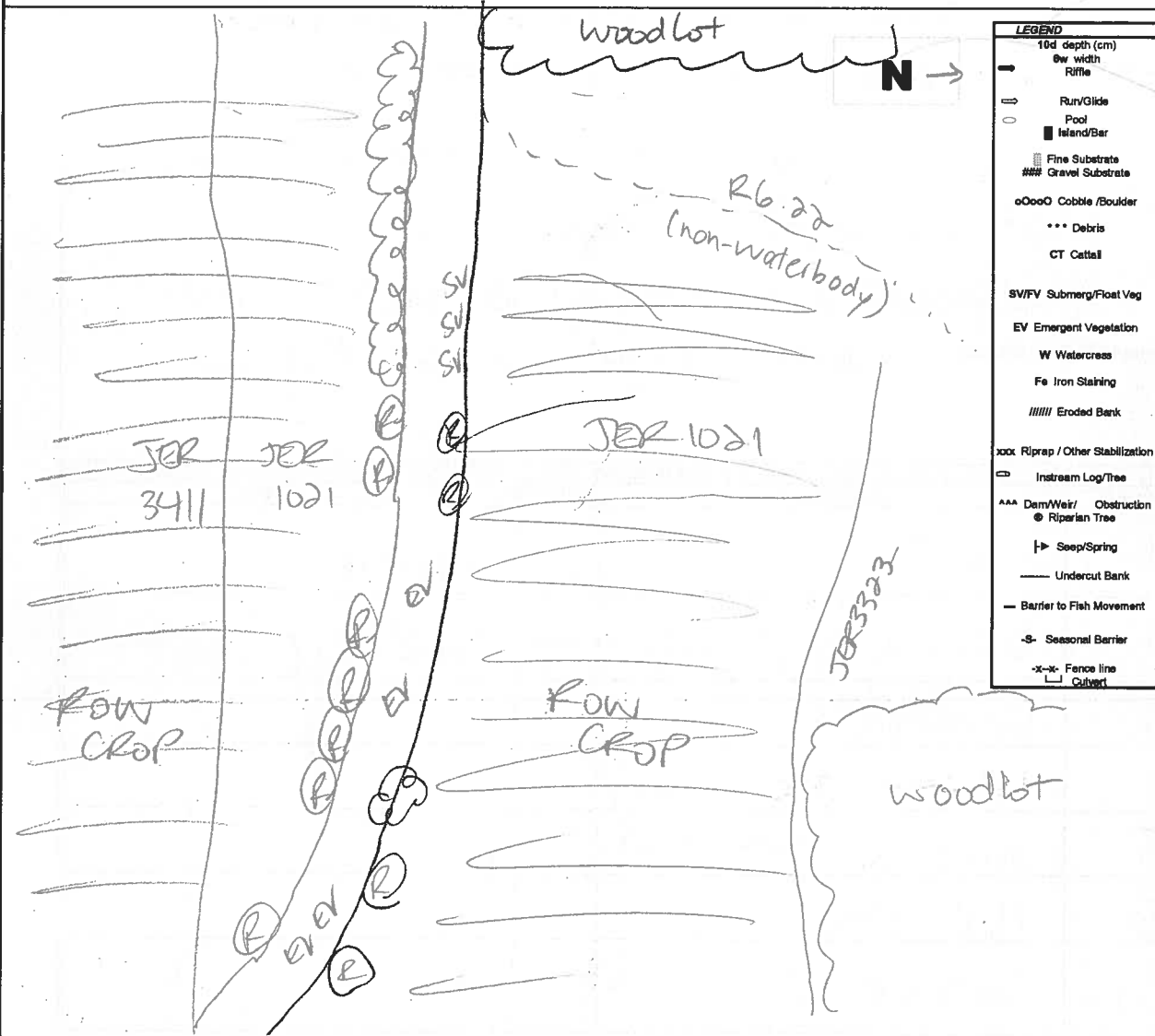
Goshen

Bluewater

Land Parcel# 1021

Site ID

R6.18B



LEGEND	
10d depth (cm)	
0w width	
Riffle	
Run/Glide	
Pool	
Island/Bar	
Fine Substrate	
Gravel Substrate	
Cobble/Boulder	
Debris	
Cattail	
Submerg/Float Veg	
Emergent Vegetation	
Watercress	
Iron Staining	
Eroded Bank	
Riprap / Other Stabilization	
Instream Log/Tree	
Dem/Weir / Obstruction	
Riparian Tree	
Seep/Spring	
Undercut Bank	
Barrier to Fish Movement	
Seasonal Barrier	
Fence line	
Culvert	

SV = floating algae
EV = grasses

Horizontal View of Channel



Initial QA/QC By:

L. Bentley

Date:

May 22, 2012

Technical QA/QC By:

Stutts

Date:

Jun 11/12

Water Bodies Assessment Field Collection Form

AECOM		Page 1 of 4	
General Information			
Study Area: <u>Jericho</u>	Goshen	Bluewater	Land Parcel# <u>TER 3156</u> Site ID: <u>R6.1P AD</u>
Date: <u>July 31/12</u>	Start time: <u>10:25</u>	End Time: <u>11:00</u>	
Weather Conditions: <u>Sunny, 24°C</u>		Field Crew: <u>C. Boros, T. Shoney</u>	
		Field Notes By: <u>C. Boros</u>	
Site Location			
<u>Army Camp Rd, south of Cedar Point Line</u>			
UTM Co-ordinates (continue on page 3 if necessary)			
Easting: <u>423733</u>	Northing: <u>4774276</u>	Description: <u>st</u>	
Easting: <u>423739</u>	Northing: <u>4774256</u>	Description: <u>wg</u>	
Easting: <u>423829</u>	Northing: <u>4774080</u>	Description: <u>end</u>	
Easting:	Northing:	Description:	
Surrounding Landuse		Type of Watercourse	
Residential ☐	Meadow ☐	Intermittent ☐	Channelized ☒
Agriculture ☒	Wetland ☐	Permanent ☒	Natural Channel ☐
Forest ☐	Livestock ☐	Ephemeral ☐	
Other ☐			
Description: <u>very beam</u>		Description: <u>straight</u>	
Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow)			
<u>Tile drains - one flowing</u>			
Is any portion of the water body underground or not as mapped? <u>Y/N</u>			
If Yes describe:			
GPS Coordinate: Easting -		Northing -	
		Description -	
Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)			
<u>flat</u>			
In-Situ Water Quality		Ground Water and Seepage Indicators	
WT (°C): <u>21.87</u>	AT (°C): <u>24C</u>	Watercress ☒ Bank Seepage ☐ Iron Staining ☐ None ☐ Bubbling ☐ ☐ Other ☐	
pH: <u>7.62</u>	Cond (µs/cm): <u>623</u>		
D.O. (mg/L) <u>5.65</u>			
Water Clarity: Clear ☐ Turbid <u>51</u> ☒			
Water Colour: <u>brown</u>			
Notes: <u>shallow water (0.15m)</u>		Details: <u>sporadic snail clumps</u>	

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): 200m				Bank Stability:																
Channel Dimensions				<table border="1" style="width: 100%; text-align: center;"> <tr> <th></th> <th>Stable</th> <th>Slightly unstable</th> <th>Moderately unstable</th> <th>Unstable</th> </tr> <tr> <td>Left Bank</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> </table>			Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☐	☒	☐	☐	Right Bank	☐	☒	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☐	☒	☐	☐																
Right Bank	☐	☒	☐	☐																
Mean Wetted Width (m): 1.0	Mean Wetted Depth (m): 0.15	Description: erosion + undercutting observed																		
Mean Bankfull Width (m): 1.5	Mean Bankfull Depth (m): 0.7																			
Mean Top of Bank Width (m): 7.5	Mean Top of Bank Depth (m): 2																			
Flow Description: (high or low flow conditions, stagnant, etc)																				
slow flow																				
Habitat																				
Substrate (<=>)		Morphological Structure (%)																		
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus		<table border="1" style="width: 100%; text-align: center;"> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td></td> <td></td> <td></td> <td>100</td> </tr> </table>				Pool	Riffle	Run	Flat				100							
Pool	Riffle	Run	Flat																	
			100																	
Description: silt > sand > gravel		Notes: straight																		
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None															
			2	70																
Undercut Banks																				
Average Depth: 3																				
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																				
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.)																				
grasses >> duckweed > algae																				
Canopy Cover (% closed cover):			Types of Cover (% cover)																	
100-90% ☒	30-1% ☐	Trees	Shrubs 10	Man-made structures																
90-60% ☐	0% ☐	Grasses 90	Herbaceous	Other																
60-30% ☐																				
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																				
Notes: (vegetation species, types of structures)																				
need canary grass >>> dogwood																				
Riparian Vegetation																				
Width and Description of riparian vegetation: LB - < 0.5m - meadow			RB - 0.5m - meadow																	
Overhanging Vegetation Present Y / N			% Overhanging Vegetation:																	
Description of Overhanging Vegetation:																				
Obstructions to Fish Passage																				
None Observed ☐	Man-Made ☐	Natural ☐	Low Flow Barrier ☒																	
Description of Barrier: potentially low flow barrier																				
Height of Barrier (m)			GPS Coordinates:																	

Water Bodies Assessment Field Collection Form

AECOM

Date: July 31/12

Land Parcel/Site ID:

JER 3156
R6.18AD

Page 3 of 4

Other General Comments Regarding the Study Area:

Straight channelized water course that has banks lined
w Reed canary grass that provides high canopy cover.
Some instream veg (grasses + duckweed) and soft bottom.
Slow flow.

Additional UTM Coordinates:

Photo log			
Picture #	Description	Picture #	Description
1-2	North end		
3	water quality location		
4-18	moving South to end		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

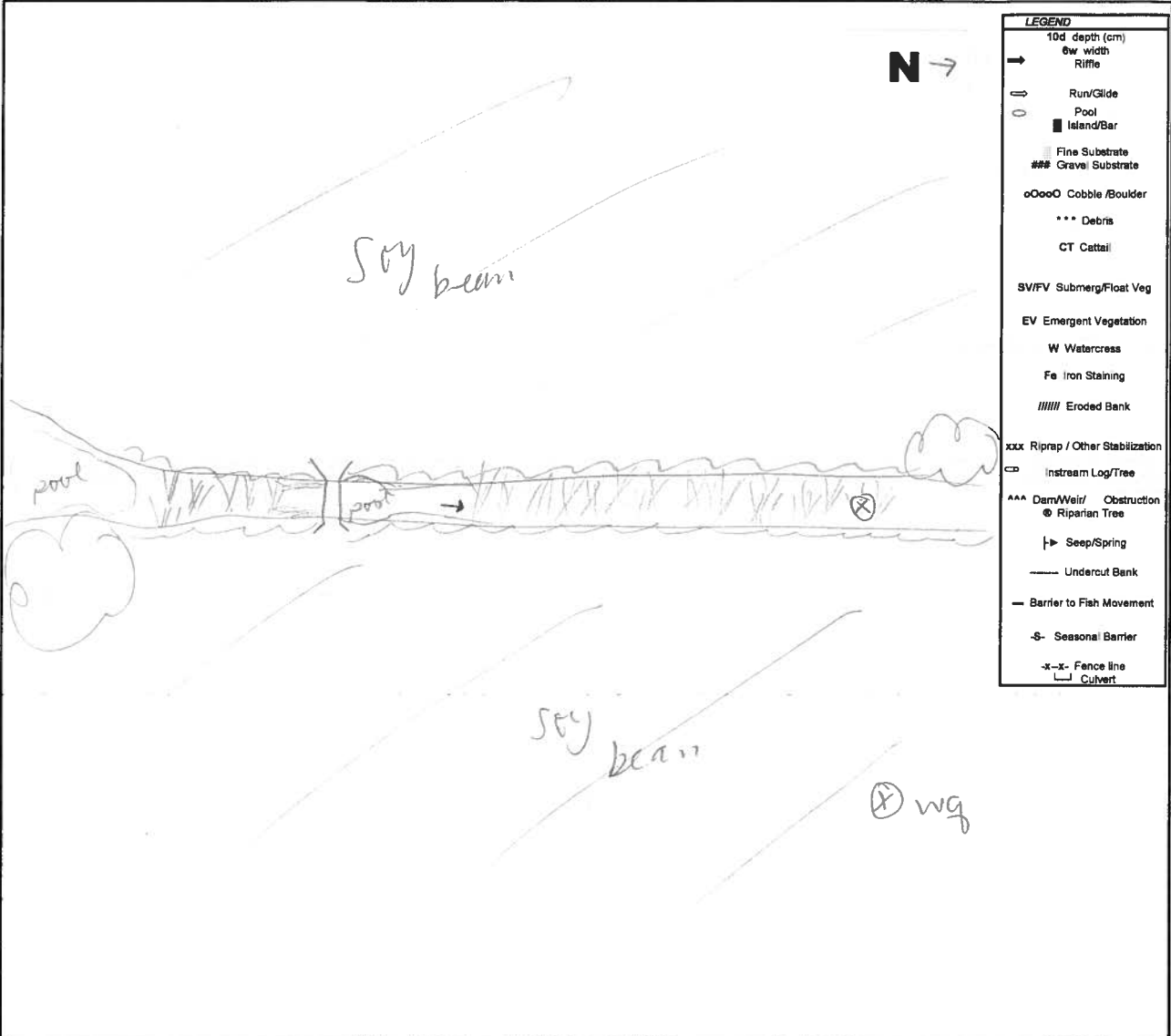
Bluewater

Land Parcel#

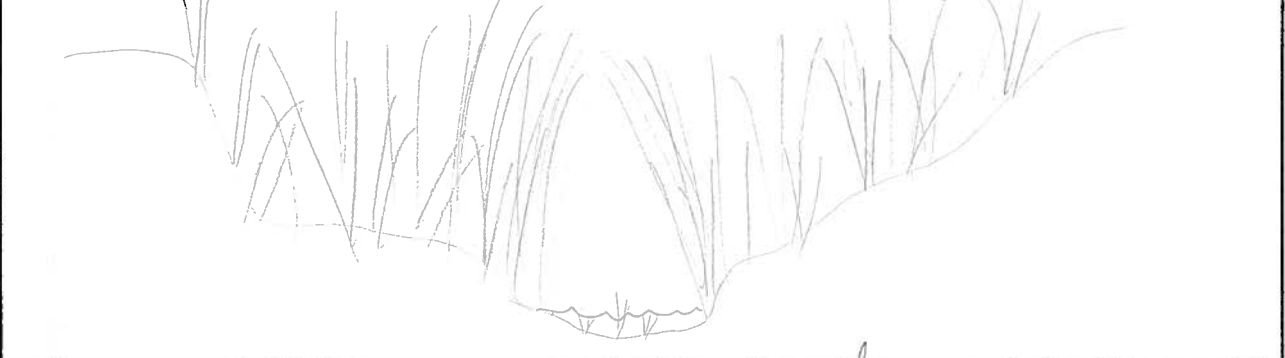
TER 3156

Site ID

126.18 AD



Horizontal View of Channel



Initial QA/QC By: L. Bentley

Date: August 14, 2012

Technical QA/QC By: [Signature]

Date: Oct 2/12

Water Bodies Assessment Field Collection Form

Page 1 of 4

AECOM

General Information

Study Area: Jericho Goshen Bluewater Land Parcel# 3157/3158 Site ID: R6.18D
 Date: May 28 / 12 Start time: 12:30 End Time: 1330
 Weather Conditions: Sunny 25°C Field Crew: C. Baros, A. Arsenault
 Field Notes By: C. Baros

Site Location

Army Camp Rd., North of Jura Lr.

UTM Co-ordinates (continue on page 3 if necessary)

Easting: <u>0423940</u>	Northing: <u>4773657</u>	Description: <u>R6.18 start</u>
Easting: <u>0423875</u>	Northing: <u>4773775</u>	Description: <u>R6.18 mid</u>
Easting: <u>0423833</u>	Northing: <u>4774064</u>	Description: <u>R6.18 end</u>
Easting:	Northing:	Description:

Surrounding Landuse		Type of Watercourse
Residential ☐	Meadow ☐	Intermittent ☐
Agriculture ☒	Wetland ☐	Permanent ☒
Forest ☐	Livestock ☐	Ephemeral ☐
Other ☐		Channelized ☒
		Natural Channel ☐
Description: <u>Crop fields</u>		Description: <u>Straight</u>

Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow)

tile drains - flowing

Is any portion of the water body underground or not as mapped? Y N
 If Yes describe:

GPS Coordinate: Easting - Northing - Description -

Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)

flat

In-Situ Water Quality

WT (°C): 22.74 AT (°C): 25°C
 pH: 6.9 Cond (µS/cm): 607
 D.O. (mg/L): 15.41
 Water Clarity: Clear ☐ Turbid ☐
sl. turbid.
 Water Colour:

Notes: wq taken in water 0.25m

Ground Water and Seepage Indicators

Watercress ☐ Bank Seepage ☐
 Iron Staining ☐ None ☒
 Bubbling ☐
 Other ☐

Details:

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): 350m				Bank Stability:																
Channel Dimensions				<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>			Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): 2	Mean Wetted Depth (m): 0.3		Description: well vegetated																	
Mean Bankfull Width (m): 3	Mean Bankfull Depth (m): 1																			
Mean Top of Bank Width (m): 5	Mean Top of Bank Depth (m): 2.5																			
Flow Description: (high or low flow conditions, stagnant, etc)																				
V. low flow - not visible in most locations																				
Habitat																				
Substrate (<=>)		Description		Morphological Structure (%)																
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus		sa, si, cl / gr		<table border="1" style="width: 100%; text-align: center;"> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td>/</td> <td>/</td> <td>/</td> <td>100</td> </tr> </table>		Pool	Riffle	Run	Flat	/	/	/	100							
Pool	Riffle	Run	Flat																	
/	/	/	100																	
				Notes: straight																
Instream Cover (%) 85																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None															
/	5	/	/	75	/															
					Undercut Banks															
					Average Depth: 0.1															
					(% Cover) 5															
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																				
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.)																				
algae-attached > algae blooms > filamentous algae, pondweed																				
Canopy Cover (% closed cover):			Types of Cover (% cover)																	
100-90% ☐	30-1% ☐	Trees 70 Shrubs 30 Man-made structures																		
90-60% ☐	0% ☐	Grasses Herbaceous Other																		
60-30% ☒																				
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																				
Notes: (vegetation species, types of structures)																				
elm, willow, oak																				
Riparian Vegetation																				
Width and Description of riparian vegetation:		LB - 1.5m grasses - some trees RB - 1.5m - grasses																		
Overhanging Vegetation Present Y/N		% Overhanging Vegetation: 5																		
Description of Overhanging Vegetation:																				
some overhanging willow but does not provide much canopy cover																				
Obstructions to Fish Passage																				
None Observed ☒	Man-Made ☐	Natural ☐	Low Flow Barrier ☐																	
Description of Barrier:																				
Height of Barrier (m)																				
GPS Coordinates:																				

Water Bodies Assessment Field Collection Form

AECOM

Date: May 28 / 12

Land Parcel/Site ID: JER 3157/3158

Page 3 of 4
R6.1B.D

Other General Comments Regarding the Study Area:

- fish observed (~25 cm)
- green frogs (~5 observed)

Straight channelized water course is attached algae throughout, and algae blooms starting at culvert change on ~~west~~ west side. Clumps of trees in riparian.

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
1a 1-2	Sheet ASA for JER		
3-8	at driveway		
9-19	Channel overview		
20-30	Channel overview after culvert		
31	downstream ASA		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

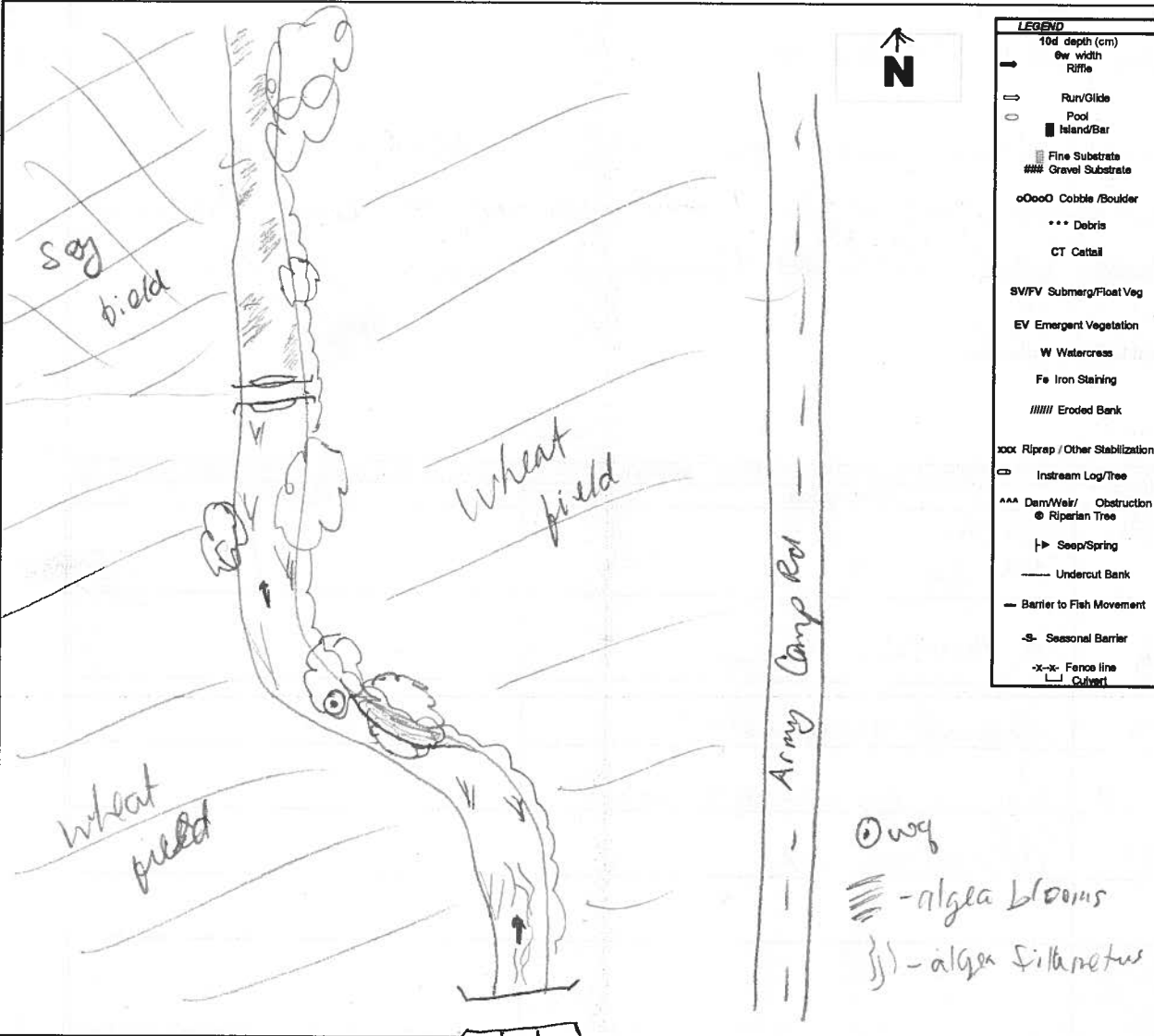
Bluewater

Land Parcel#

3157/3158

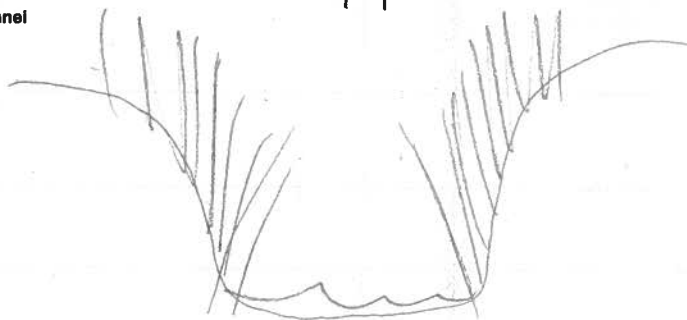
Site ID

R 6.18D



LEGEND	
10d depth (cm)	
0w width	
Riffle	
Run/Glide	
Pool	
Island/Bar	
Fine Substrate	
Gravel Substrate	
Cobble/Boulder	
Debris	
Cattail	
SV/FV Submerg/Float Veg	
EV Emergent Vegetation	
W Watercress	
Fe Iron Staining	
Eroded Bank	
Riprap / Other Stabilization	
Instream Log/Tree	
Dam/Weir/ Obstruction	
Riparian Tree	
Seep/Spring	
Undercut Bank	
Barrier to Fish Movement	
Seasonal Barrier	
Fence line	
Culvert	

Horizontal View of Channel



Initial QA/QC By: L. Penney

Date: June 9, 2012

Technical QA/QC By:

Date:

Water Bodies Assessment Field Collection Form

AECOM				Page 1 of 4	
General Information					
Study Area: <u>Jericho</u>		Goshen	Bluewater	Land Parcel# <u>3159</u>	Site ID: <u>R6.18A.D</u>
Date: <u>May 28/12</u>		Start time: <u>13:30</u>		End Time: <u>13:50</u>	
Weather Conditions: <u>Sunny, 30°C</u>			Field Crew: <u>C. Barros, A. Arsonault</u>		
			Field Notes By: <u>C. Barros</u>		
Site Location					
<u>Army Camp Road, north of Jura Ln</u>					
<u>Roadside Survey</u>					
UTM Co-ordinates (continue on page 3 if necessary)					
Easting: <u>04223941</u>		Northing: <u>4773657</u>		Description: <u>R6.18 3159S</u>	
Easting: <u>04223936</u>		Northing: <u>4773213</u>		Description: <u>R6.18 3159end.</u>	
Easting:		Northing:		Description:	
Easting:		Northing:		Description:	
Surrounding Landuse			Type of Watercourse		
Residential ☐	Meadow ☐				
Agriculture ☒	Wetland ☐				
Forest ☐	Livestock ☐				
Other ☐					
Description: <u>Crop fields - old com</u>			Description:		
Notes: (Include any inputs into the system i.e. tile drainage, seepages, overland flow)					
<u>none observed</u>					
Is any portion of the water body underground or not as mapped? Y / <u>N</u>					
If Yes describe:					
GPS Coordinate: Easting -		Northing -		Description -	
Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)					
<u>flat</u>					
In-Situ Water Quality			Ground Water and Seepage Indicators		
WT (°C):		AT (°C): <u>30°C</u>			
pH:		Cond (s/cm):			
D.O. (mg/L)					
Water Clarity: <u>Clear</u>		☒ Turbid ☐			
Water Colour:					
Notes: <u>could not complete - refer to R6.18 3157/3158</u>		Watercress ☐ Bank Seepage ☐ Iron Staining ☐ None ☒ Bubbling ☐ Other ☐			
		Details:			

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): <u>35m</u>			Bank Stability:																	
Channel Dimensions			<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
				Stable	Slightly unstable	Moderately unstable	Unstable													
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): <u>1</u>	Mean Wetted Depth (m): <u>0.15</u>	Description: <u>will be repaired</u>																		
Mean Bankfull Width (m): <u>1.75</u>	Mean Bankfull Depth (m): <u>0.40</u>																			
Mean Top of Bank Width (m): <u>5</u>	Mean Top of Bank Depth (m): <u>2</u>																			
Flow Description: (high or low flow conditions, stagnant, etc)																				
<u>slow flow</u>																				
Habitat																				
Substrate (<=>) Description Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus <u>50, 50, cl, gr</u>			Morphological Structure (%)																	
			<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Pool</td> <td>Riffle</td> <td>Run</td> <td>Flat</td> </tr> <tr> <td><u>/</u></td> <td><u>/</u></td> <td><u>/</u></td> <td><u>100</u></td> </tr> </table>			Pool	Riffle	Run	Flat	<u>/</u>	<u>/</u>	<u>/</u>	<u>100</u>							
Pool	Riffle	Run	Flat																	
<u>/</u>	<u>/</u>	<u>/</u>	<u>100</u>																	
			Notes: <u>straight</u>																	
Instream Cover (%) <u>80</u>																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None	Undercut Banks														
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>80</u>	<u>/</u>	Average Depth: <u>/</u> (% Cover)														
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																				
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.)																				
<u>algae - attached >> grasses</u>																				
Canopy Cover (% closed cover):				Types of Cover (% cover)																
100-90%	☐	30-1%	☒	Trees	<u>5</u>	Man-made structures														
90-60%	☐	0%	☐	Grasses	<u>45</u>	Herbaceous														
60-30%	☐					Other														
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																				
Notes: (vegetation species, types of structures)																				
<u>ash, sumac, willow</u>																				
Riparian Vegetation																				
Width and Description of riparian vegetation:			LB - <u>1.5m - grasses</u>																	
			RB - <u>1.5m - grasses</u>																	
Overhanging Vegetation Present ☒ N			% Overhanging Vegetation: <u>5</u>																	
Description of Overhanging Vegetation: <u>slightly overhanging channel - does not span width of channel</u>																				
Obstructions to Fish Passage																				
None Observed	☒	Man-Made	☐	Natural	☐	Low Flow Barrier														
Description of Barrier:																				
Height of Barrier (m)			GPS Coordinates:																	

AECOM

Land Parcel/Site ID: **JER 3159 R6.1B1A D** Page 3 of 4

Page 3 of 4

Roadside survey

Watercourse channelized and flows through corn field.
Little canopy cover, but instream cover high-algae.

Kiparian veg dominated by grasses.

→ Also looked on east side of road JER 3401

Additional UTM Coordinates:

Project Number: 60155032

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

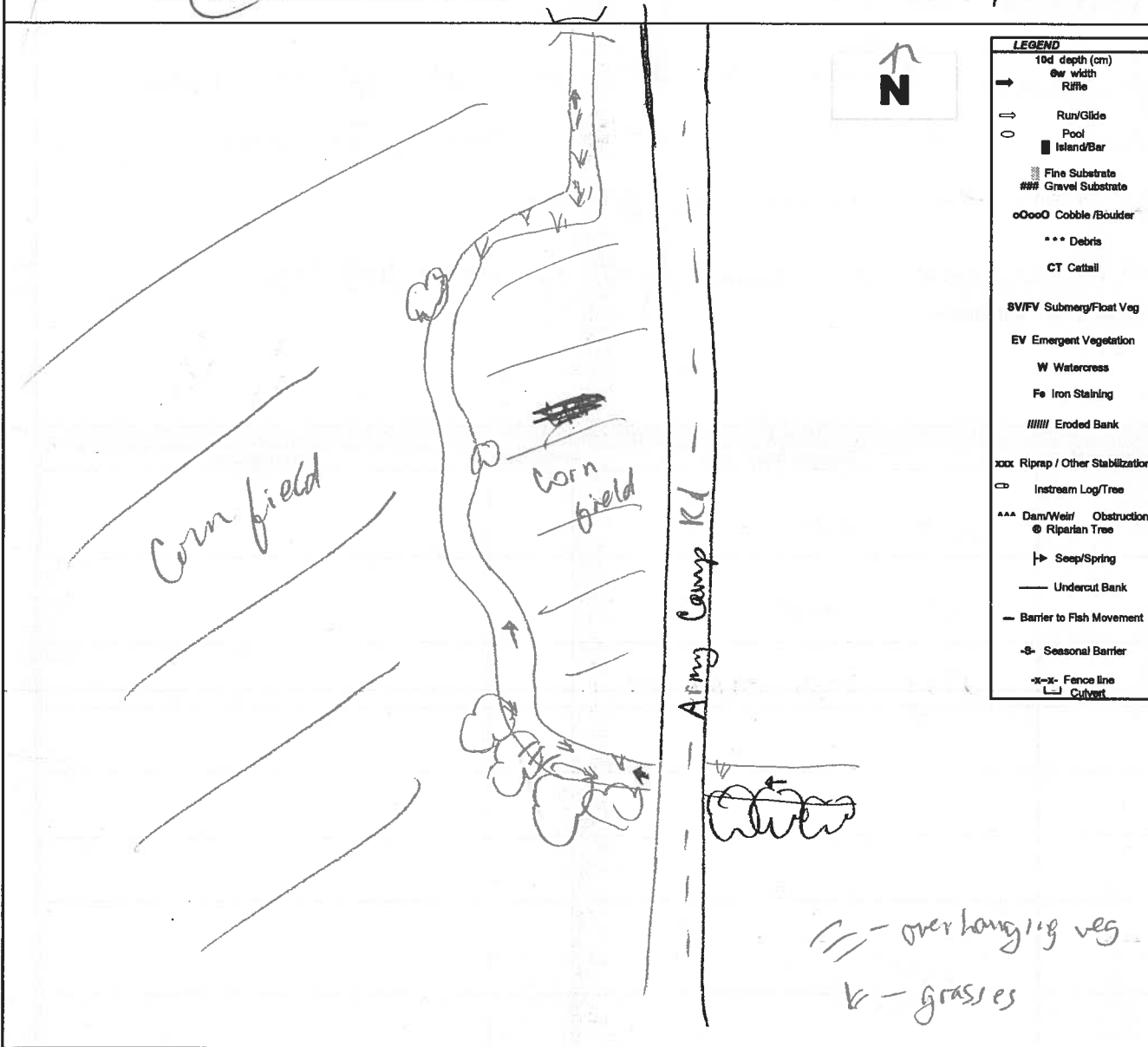
Bluewater

Land Parcel#

JER 3159

Site ID

R6.18A.D



Horizontal View of Channel



Initial QA/QC By:

L. Bentley

Date:

June 9, 2012

Technical QA/QC By:

J. Sullivan

Date:

Oct 2/12

Water Bodies Assessment Field Collection Form

AECOM

Page 1 of 4

General Information

Study Area: Jericho Goshen Bluewater Land Parcel# JER5423 Site ID: R6 C
 Date: MAY 31 / 12 Start time: 12425 End Time: 15405
 Weather Conditions: cloudy 18°C Field Crew: Standing Sparrows
 Field Notes By: S. Sparrows

Site Location

on north of Thompson line and west of Kinnard rd.

UTM Co-ordinates (continue on page 3 if necessary)

Easting: 421955 Northing: 4778480 Description: (ST) R6A
 Easting: 421981 Northing: 4778312 Description: R6B (end)
 Easting: Northing: Description:
 Easting: Northing: Description:

Surrounding Landuse

Residential ☐ Meadow ☐
 Agriculture ☒ Wetland ☐
 Forest ☐ Livestock ☐
 Other ☐

Description:

crop and winter wheat

Type of Watercourse

Intermittent ☐ Channelized ☐
 Permanent ☒ Natural Channel ☒
 Ephemeral ☐

Description:

Notes: (Include any inputs into the system i.e. tile drainage, seepages, overland flow)

low flow

Is any portion of the water body underground or not as mapped? Y / N
 If Yes describe:

GPS Coordinate: Easting - Northing - Description -

Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)

Sloping towards WB

In-Situ Water Quality

WT (°C): 18.7 AT (°C): 18.2
 pH: 8.00 Cond (s/cm): 513
 D.O. (mg/L) 5.71
 Water Clarity: Clear ☐ Turbid ☒

Water Colour:

Green

Notes:

middle of #3204 forest

Ground Water and Seepage Indicators

Watercress ☐ Bank Seepage ☐
 Iron Staining ☐ None ☒
 Bubbling ☐
 Other ☐

Details:

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): <u>~250</u>			Bank Stability:																	
Channel Dimensions			<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): <u>6.00</u>	Mean Wetted Depth (m): <u>0.50</u>		Description: <u>vegetated</u>																	
Mean Bankfull Width (m): <u>7.00</u>	Mean Bankfull Depth (m): <u>0.75</u>																			
Mean Top of Bank Width (m): <u>10.00</u>	Mean Top of Bank Depth (m): <u>2.10</u>																			
Flow Description: (high or low flow conditions, stagnant, etc) <u>low flow</u>																				
Habitat																				
Substrate (<=>)		Description		Morphological Structure (%)																
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus		<u>Si >> Co</u>		<table border="1" style="width: 100%; text-align: center;"> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td></td> <td><u>5</u></td> <td><u>5</u></td> <td><u>90</u></td> </tr> </table>		Pool	Riffle	Run	Flat		<u>5</u>	<u>5</u>	<u>90</u>							
Pool	Riffle	Run	Flat																	
	<u>5</u>	<u>5</u>	<u>90</u>																	
				Notes:																
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None															
			<u>2</u>	<u>10</u>																
					Undercut Banks															
					Average Depth: (% Cover)															
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100% *Aquatic Vegetation Species Present (algae, submergent, emergent etc.) <u>algae, large fruit Buried</u>																				
Canopy Cover (% closed cover):																				
100-90%	☐	30-1%	☒	Types of Cover (% cover)																
90-60%	☐	0%	☐	Trees <u>25</u>	Shrubs <u>15</u>															
60-30%	☒			Grasses	Herbaceous															
				Man-made structures	Other															
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100% Notes: (vegetation species, types of structures) <u>ASH - SALIX trees</u>																				
Riparian Vegetation																				
Width and Description of riparian vegetation: <u>2m</u>		RB - <u>1m</u>																		
Overhanging Vegetation Present ☒ N		% Overhanging Vegetation: <u>2</u>																		
Description of Overhanging Vegetation:																				
<u>trees ASH, SALIX shrubs</u>																				
Obstructions to Fish Passage																				
None Observed	☒	Man-Made	☐	Natural	☐															
Description of Barrier:		Low Flow Barrier ☐																		
Height of Barrier (m)		GPS Coordinates:																		

Water Bodies Assessment Field Collection Form

AECOM

Date:

MAY 31 / 12

Land Parcel/Site ID:

JER 5423

Page 3 of 4

R6C

Other General Comments Regarding the Study Area:

- appear bull Frog
- Cyprinidae observed
- Fish Habitat For sure.
- meander stream
- large river
- have a lot of sections under shade

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
1157	Facing North (R6A)		
1158	Facing South (R6A)		
1158	Input Drain (R6A)		
1159	Facing north		
1160	Facing South		
1161	Facing north (R6B)		
1162	Facing South (R6B)		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

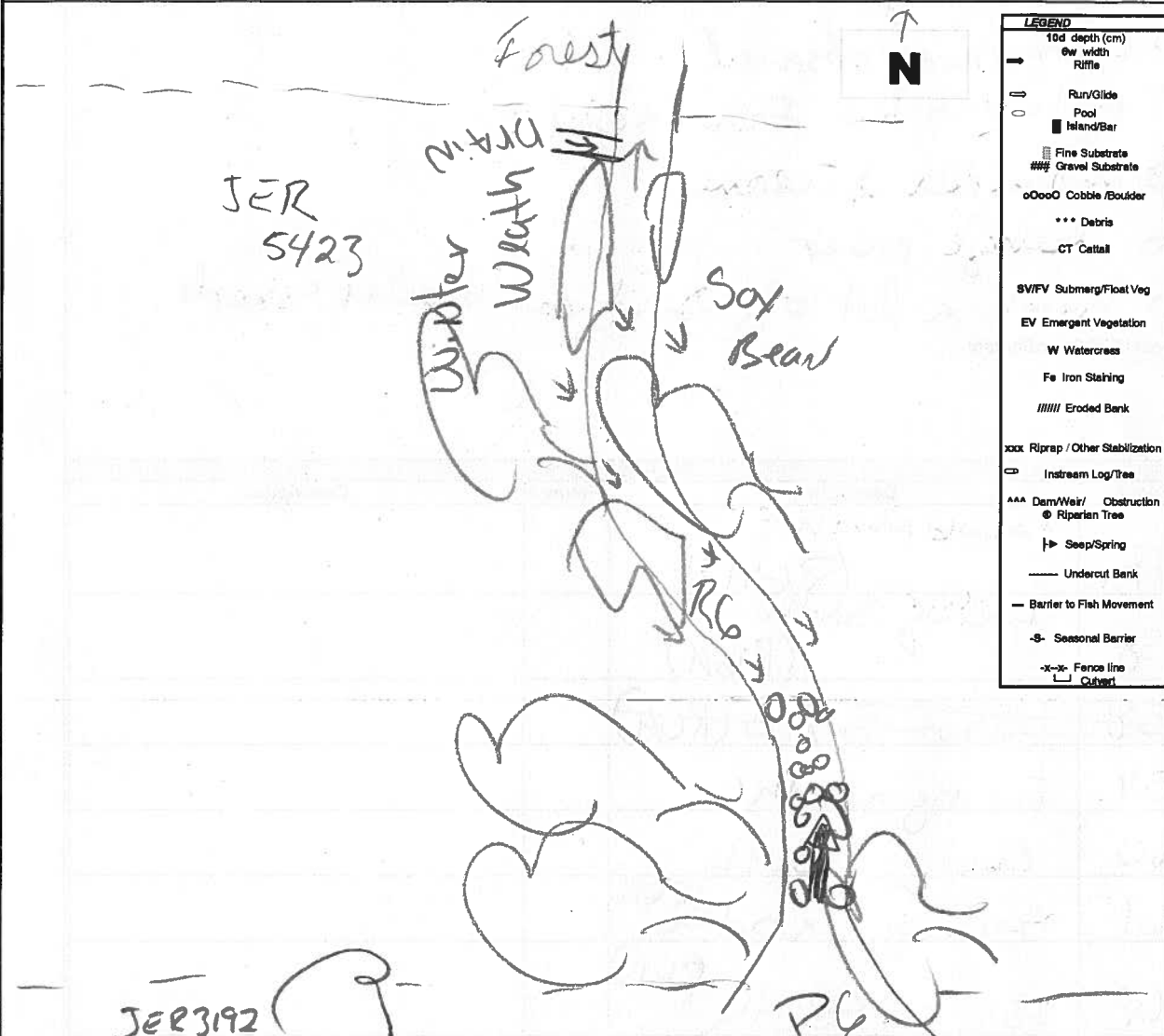
Bluewater

Land Parcel#

Jer 5423

Site ID

RG C



LEGEND	
10d depth (cm)	
0w width	
Riffle	→
Run/Glide	⇨
Pool	○
Island/Bar	■
Fine Substrate	□
Gravel Substrate	###
Cobble/Boulder	oOooO
Debris	***
Cattail	CT
Submerg/Float Veg	SV/FV
Emergent Vegetation	EV
Watercress	W
Iron Staining	Fe
Eroded Bank	////
Riprap / Other Stabilization	xxx
Instream Log/Tree	—
Dam/Weir / Obstruction	AAA
Riparian Tree	●
Seep/Spring	↳
Undercut Bank	—
Barrier to Fish Movement	—
Seasonal Barrier	-S-
Fence line	-x-x-
Culvert	□

Horizontal View of Channel



Initial QA/QC By:

L. Bentley

Date:

June 6, 2012

Technical QA/QC By:

John K. Oct 2/12

Date:

Water Bodies Assessment Field Collection Form

AECOM				Page 1 of 4	
General Information					
Study Area: <u>Jericho</u>		Goshen		Bluewater	
Date: <u>MAY 31/12</u>		Start time: <u>12:25</u>		End Time: <u>15:00</u>	
Weather Conditions: <u>SUNNY</u>		21°C		Field Crew: <u>CHANDLER SDAICHE</u>	
				Field Notes By: <u>SDAICHE</u>	
Site Location					
<u>East and Follow Kinnard Rd.</u>					
<u>South of Thompson Line</u>					
UTM Co-ordinates (continue on page 3 if necessary)					
Easting: <u>422048</u>		Northing: <u>4777594</u>		Description: <u>R6F</u>	
Easting: <u>422117</u>		Northing: <u>4777205</u>		Description: <u>R6G</u>	
Easting: <u>422152</u>		Northing: <u>4777191</u>		Description: <u>R6H</u>	
Easting: <u>422394</u>		Northing: <u>4777026</u>		Description: <u>R6I</u>	
Surrounding Landuse			Type of Watercourse		
Residential ☐ Agriculture ☒ Forest ☐ Other ☐			Meadow ☐ Wetland ☐ Livestock ☐		
Description: <u>LB COM - RB SOY BEAN</u>			Description: _____		
<u>Band of forest, crop</u>			<u>_____</u>		
Notes: (Include any inputs into the system i.e. tile drainage, seepages, overland flow)					
Is any portion of the water body underground or not as mapped? <u>Y</u> / <u>(B)</u>					
If Yes describe:					
GPS Coordinate: Easting -		Northing -		Description -	
Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)					
<u>Sloping towards WB.</u>					
In-Situ Water Quality			Ground Water and Seepage Indicators		
WT (°C): <u>16.8</u>			AT (°C): <u>20.9</u>		
pH: <u>8.01</u>			Cond (s/cm): <u>512</u>		
D.O. (mg/L): <u>7.25</u>			Watercress ☐		
Water Clarity: <u>Clear</u>			Bank Seepage ☐		
<u>X</u> Turbid ☐			Iron Staining ☐		
Water Colour:			Bubbling ☐		
Notes: <u>Transparent</u>			Other ☐		
<u>UIS of the farming</u>			Details:		
<u>Access, meander section</u>					

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): <u>~600m</u>			Bank Stability:																	
Channel Dimensions			<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): <u>4.00</u>	Mean Wetted Depth (m): <u>0.50</u>	Description: <u>vegetated</u>																		
Mean Bankfull Width (m): <u>6.00</u>	Mean Bankfull Depth (m): <u>1.10</u>																			
Mean Top of Bank Width (m): <u>10.00</u>	Mean Top of Bank Depth (m): <u>2.25</u>																			
Flow Description: (high or low flow conditions, stagnant, etc.)																				
<u>low flow</u>																				
Habitat																				
Substrate (<= >)		Description		Morphological Structure (%)																
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus		<u>Si</u>		<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Pool</td> <td>Riffle</td> <td>Run</td> <td>Flat</td> </tr> <tr> <td></td> <td><u>10</u></td> <td><u>45</u></td> <td><u>45</u></td> </tr> </table>		Pool	Riffle	Run	Flat		<u>10</u>	<u>45</u>	<u>45</u>							
Pool	Riffle	Run	Flat																	
	<u>10</u>	<u>45</u>	<u>45</u>																	
				Notes:																
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None															
		<u>10</u>	<u>5</u>	<u>5</u>																
					Undercut Banks															
					Average Depth: <u>none</u>															
					(% Cover)															
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																				
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.)																				
<u>Common water weed, algae</u>																				
Canopy Cover (% closed cover):			Types of Cover (% cover)																	
100-90% ☐	30-1% ☒	Trees <u>5</u>	Shrubs <u>2</u>	Man-made structures																
90-60% ☐	0% ☐	Grasses	Herbaceous	Other																
60-30% ☐																				
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																				
Notes: (vegetation species, types of structures)																				
<u>elm, salix trees, ash, salix shrubs</u>																				
Riparian Vegetation																				
Width and Description of riparian vegetation:		RB - <u>2m</u>																		
<u>Grasses, willow shrubs, Canada anemone, wild roses</u>																				
Overhanging Vegetation Present ☒ N		% Overhanging Vegetation: <u>2</u>																		
Description of Overhanging Vegetation:																				
<u>salix shrubs</u>																				
Obstructions to Fish Passage																				
None Observed ☒	Man-Made ☐	Natural ☐	Low Flow Barrier ☐																	
Description of Barrier:																				
Height of Barrier (m)			GPS Coordinates:																	

Water Bodies Assessment Field Collection Form

AECOM

Date: May 31/12

Land Parcel/Site ID:

R6LJER

Page 3 of 4

3206/3207

Other General Comments Regarding the Study Area:

- Green Frogs observed
- cyprinidae observed
- Inlet R6L → Never find the output?
- Rockpile R6H →
- Crayfish.
- ~~meander~~

Additional UTM Coordinates:

Photo log			
Picture #	Description	Picture #	Description
1179	FACING South		
1180	FACING North		
1181	Inlet spring water field		
1182	Rock Piles		
1183	Bridge R6H		
1184	FACING North R6H		
1185	FACING South R6H		
1186	UNSTABLE Bank R/B		
1187	FACING South (R6I)		
1188	FACING North (R6I)		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

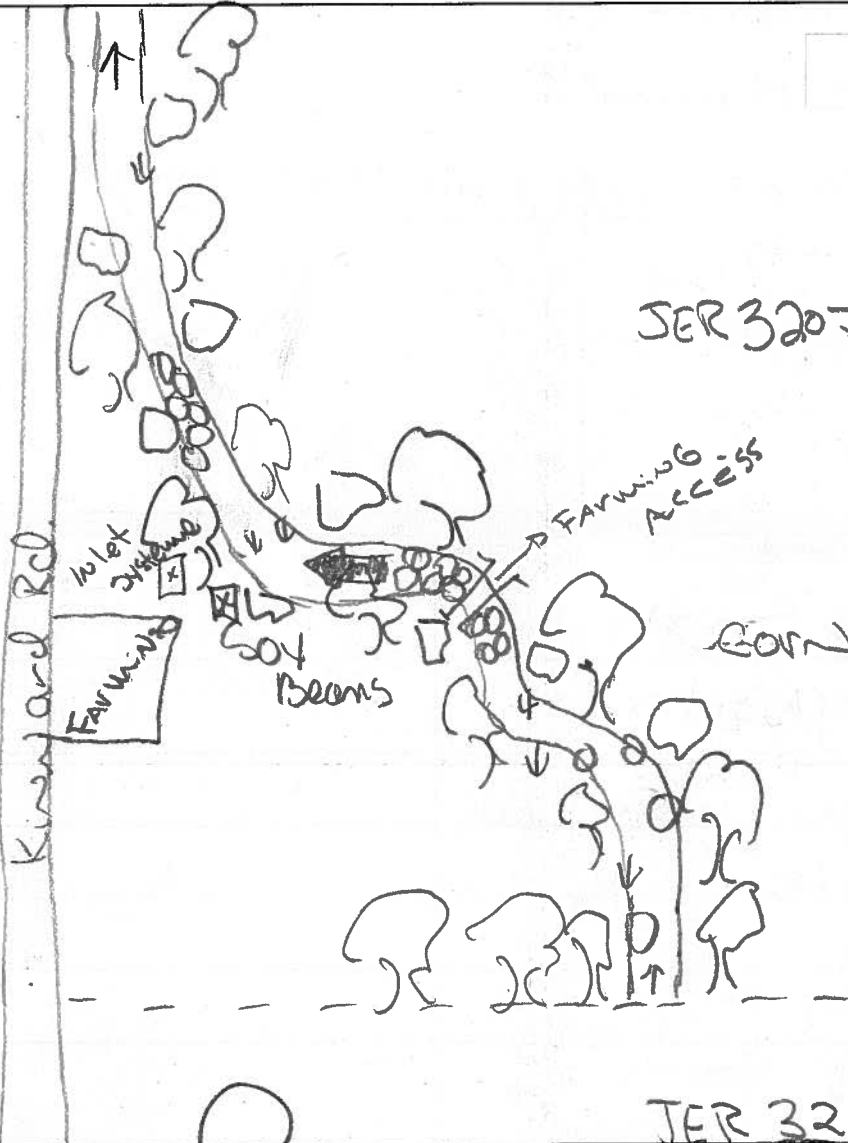
Bluewater

Land Parcel#

JER 3206
JER 3207

Site ID

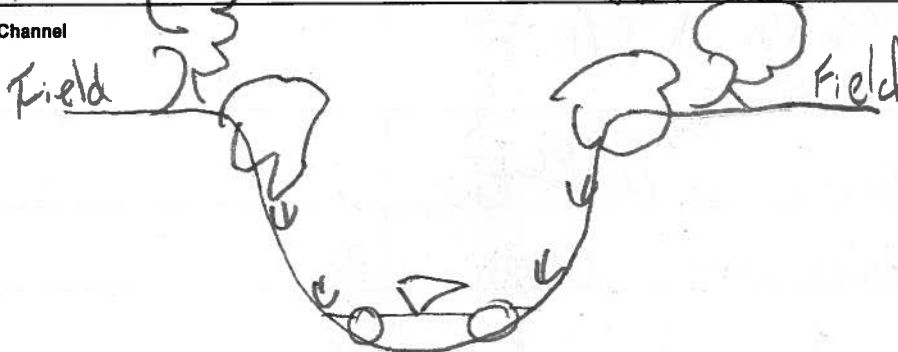
B6 C



N

LEGEND	
10d depth (cm)	→
8w width	→
Riffle	→
Run/Glide	→
Pool	○
Island/Bar	■
Fine Substrate	□
Gravel Substrate	###
Cobble/Boulder	oOooO
Debris	***
Cattail	CT
Submerg/Float Veg	SV/FV
Emergent Vegetation	EV
Watercress	W
Iron Staining	Fe
Eroded Bank	
Riprap / Other Stabilization	xxx
Instream Log/Tree	□
Dam/Weir Obstruction	AAA
Riparian Tree	⊗
Seep/Spring	↳
Undercut Bank	—
Barrier to Fish Movement	—
Seasonal Barrier	-S-
Fence line	-x-x-
Culvert	□

Horizontal View of Channel



Initial QA/QC By:

L. Bentley

Date:

June 4, 2002

Technical QA/QC By:

Date:

Water Bodies Assessment Field Collection Form

Page 1 of 4

AECOM

General Information JER 3203

Study Area: Jericho Goshen Bluewater Land Parcel# 3204+03 Site ID: R6 C
Date: MAY 31/12 Start time: 12h25 End Time: 15h05

Weather Conditions: Sunny cloudy day 18°C
Field Crew: S DANAICHE
Field Notes By: S DANAICHE

Site Location

On Both sides of Thompson (south-north)
and Follow Kinnard on Both sides (east-west)

UTM Co-ordinates (continue on page 3 if necessary)

Easting: 422076	Northing: 4778057	Description: (ST) R6C
Easting: 422041	Northing: 4777770	Description: R6E (culvert)
Easting: 422048	Northing: 4777594	Description: R6F

Surrounding Landuse
Residential ☐ Agriculture ☒ Forest ☐ Other ☐
Meadow ☐ Wetland ☐ Livestock ☐

Type of Watercourse
Intermittent ☐ Channelized ☐
Permanent ☒ Natural Channel ☒
Ephemeral ☐

Description:

Lb - n corn

Notes: (Include any inputs into the system i.e. tile drainage, seepages, overland flow)

from tile drainage (culvert) side channel (R6E)
is any portion of the water body underground or not as mapped? Y / N
If Yes describe:

GPS Coordinate: Easting -

Northing -

Description -

Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)

Sloping towards WBR

In-Situ Water Quality

WT (°C): 17.2 AT (°C): 18.2
pH: 8.30 Cond (s/cm): 521
D.O. (mg/L): 7.48

Water Clarity: Clear ☐ Turbid ☒ (lightly)

Water Colour:

Notes:

South of the wood
on west of Kinnard Rd
in field section

Ground Water and Seepage Indicators

Watercress ☐ Bank Seepage ☐
Iron Staining ☐ None ☒
Bubbling ☐
Other ☐

Details:

Water Bodies Assessment Field Collection Form

Stream Morphology													
Site Length (m): <u>1500m ~ 500m</u>			Bank Stability:										
Channel Dimensions Mean Wetted Width (m): <u>2.50</u> Mean Bankfull Width (m): <u>8.80</u> Mean Top of Bank Width (m): <u>10.00</u>			Stable ☒ Slightly unstable ☐ Moderately unstable ☐ Unstable ☐ Left Bank Right Bank										
Mean Wetted Depth (m): <u>0.70</u> Mean Bankfull Depth (m): <u>1.75</u> Mean Top of Bank Depth (m): <u>2.00</u>			Description: <u>Vegetated</u>										
Flow Description: (high or low flow conditions, stagnant, etc) <u>low Flow</u>													
Habitat													
Substrate (<=>)		Description		Morphological Structure (%)									
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus		<u>Si > Co = Bo</u>		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> </thead> <tbody> <tr> <td></td> <td><u>10</u></td> <td><u>10</u></td> <td><u>80</u></td> </tr> </tbody> </table>		Pool	Riffle	Run	Flat		<u>10</u>	<u>10</u>	<u>80</u>
Pool	Riffle	Run	Flat										
	<u>10</u>	<u>10</u>	<u>80</u>										
				Notes:									
Instream Cover (%)													
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None								
<u>2</u>		<u>2</u>	<u>2</u>	<u>2</u>	<u>X</u>								
					Undercut Banks								
					Average Depth: <u>30cm</u>								
					(% Cover) <u>2%</u> <u>LB and RB</u>								
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%													
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.) <u>algae, water weed common</u>													
Canopy Cover (% closed cover):			Types of Cover (% cover)										
100-90% ☐	30-1% ☒	Trees <u>5</u>	Shrubs <u>5</u>	Man-made structures									
90-60% ☐	0% ☐	Grasses	Herbaceous	Other									
60-30% ☐													
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%													
Notes: (vegetation species, types of structures) <u>Salix shrubs, Maple and Salix trees and Populus deltoid</u>													
Width and Description of riparian vegetation: <u>LB - >25</u>			Riparian Vegetation: <u>RB - >25</u>										
<u>Grasses, Wild Roses, Salix shrubs</u>			<u>Grasses, Wild Roses, Salix shrubs</u>										
Overhanging Vegetation Present ☒ N			% Overhanging Vegetation: <u>4%</u>										
Description of Overhanging Vegetation: <u>Salix shrubs</u>													
Obstructions to Fish Passage													
None Observed ☐	Man-Made ☒	Natural ☐	Low Flow Barrier ☐										
Description of Barrier: <u>Rock pile (Partial obstruction)</u> <u>created to allow vehicle passage, - 260</u>													
Height of Barrier (m) <u>40cm</u>		GPS Coordinates: <u>472186 4778036</u>											

Water Bodies Assessment Field Collection Form

AECOM

Date:

MAY 31 / 12

Land Parcel/Site ID:

3203 ~~400A~~
3204 / RLC

Page 3 of 4

Other General Comments Regarding the Study Area:

- Fish cyprinadaes observed
- Meander stream
- large river section
- contained fish obstruction passage (handmade)
- Some sections are under shade

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
1169 1170	Obstruction Fish Passage		
1171	U/S From (R6D)		
1172	U/S		
1173	D/S		
1174	U/S R6E		
1175	D/S R6E		
1176	culvert and channel R6E		
1177	U/S From R6K		
1178	D/S From R6E		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

Bluewater

Land Parcel#

3203
3204

Site ID

R4C

N

THOMPSON

Meadow

CORN

JER 3206

Soy Bean

JER 3203

LEGEND

- 10d depth (cm)
- 9w width
- Riffle
- Run/Glide
- Pool
- Island/Bar
- Fine Substrate
- Gravel Substrate
- Cobble/Boulder
- Debris
- Cattail
- Submerg/Floater Veg
- Emergent Vegetation
- Watercress
- Iron Staining
- Eroded Bank
- Riprap / Other Stabilization
- Instream Log/Tree
- Dam/Weir / Obstruction
- Riparian Tree
- Seep/Spring
- Undercut Bank
- Barrier to Fish Movement
- Seasonal Barrier
- Fence line
- Outlet

Horizontal View of Channel

Initial QA/QC By:

L. Bentley

Date:

June 4, 2012

Technical QA/QC By:

J. Miller

Date:

Oct 2/12

Water Bodies Assessment Field Collection Form

AECOM		Page 1 of 4	
General Information			
Study Area: <u>Jericho</u>	Goshen	Bluewater	Land Parcel# <u>Jer 3428</u> Site ID: <u>R6.18 A</u>
Date: <u>May 23/12</u>	Start time: <u>16:43</u>	End Time: <u>16:45</u>	
Weather Conditions: <u>Sunny</u> <u>23°C</u>		Field Crew: <u>S. Aitken, S. Daraiche</u>	
		Field Notes By: <u>S. Aitken</u>	
Site Location			
<u>located along Northville Rd, ASA from road.</u> <u>waterbody located on west side</u>			
UTM Co-ordinates (continue on page 3 if necessary) <u>none taken</u>			
Easting:	Northing:	Description:	
Easting:	Northing:	Description:	
Easting:	Northing:	Description:	
Easting:	Northing:	Description:	
Surrounding Landuse		Type of Watercourse	
Residential ☐	Meadow ☐	Intermittent ☐	Channelized ☒
Agriculture ☒	Wetland ☐	Permanent ☒	Natural Channel ☐
Forest ☐	Livestock ☐	Ephemeral ☐	
Other ☐			
Description: <u>Wheat on either side</u>		Description: <u>maintained channel.</u>	
Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow)			
<u>roadside ditch</u> <u>inputs</u> road			
Is any portion of the water body underground or not as mapped? Y <u>(N)</u>			
If Yes describe:			
GPS Coordinate: Easting - Northing - Description -			
Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)			
<u>Very Flat</u>			
In-Situ Water Quality		Ground Water and Seepage Indicators	
WT (°C):	AT (°C):	Watercress ☐	Bank Seepage ☐
pH:	Cond (s/cm):	Iron Staining ☐	None ☒
D.O. (mg/L)		Bubbling ☐	
Water Clarity: Clear ☐ Turbid ☐		Other ☐	
Water Colour:		Details:	
Notes: <u>none taken</u> <u>ASA</u>			

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): ~20 m			Bank Stability:																	
Channel Dimensions			<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): 0.50	Mean Wetted Depth (m): 0.10		Description: well vegetated.																	
Mean Bankfull Width (m): 1.0	Mean Bankfull Depth (m): 0.80																			
Mean Top of Bank Width (m): 4.5	Mean Top of Bank Depth (m): 2.0																			
Flow Description: (high or low flow conditions, stagnant, etc)																				
low flow conditions, observed flow, flowing west																				
Habitat																				
Substrate (<=>)			Morphological Structure (%)																	
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus			<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Pool</td> <td>Riffle</td> <td>Run</td> <td>Flat</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>			Pool	Riffle	Run	Flat											
			Pool	Riffle	Run	Flat														
could not assess			could not assess																	
Notes:																				
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None	Undercut Banks														
				100		Average Depth: (% Cover)														
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																				
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.)																				
choked w/ emergent grasses, cattails																				
Canopy Cover (% closed cover):				Types of Cover (% cover)																
100-90%	☐	30-1%	☐	Trees	Shrubs	Man-made structures														
90-60%	☐	0%	☒	Grasses	Herbaceous	Other														
60-30%	☐																			
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																				
Notes: (vegetation species, types of structures)																				
Riparian Vegetation																				
Width and Description of riparian vegetation: LB - 5m grasses + herbaceous			RB - 5m grasses + herbaceous																	
Overhanging Vegetation Present Y/N			% Overhanging Vegetation:																	
Description of Overhanging Vegetation:																				
Obstructions to Fish Passage																				
None Observed	☒	Man-Made	☐	Natural	☐	Low Flow Barrier														
Description of Barrier:																				
Height of Barrier (m)																				
GPS Coordinates:																				

Water Bodies Assessment Field Collection Form

AECOM

Date:

May 23 / 12

Land Parcel/Site ID:

JER3428 / R6.18A

Page 3 of 4

Other General Comments Regarding the Study Area:

- straightend agricultural drain, choked with vegetation
- very uniform
- runs parallel to driveway
- culvert on east side drains ditches - no channel

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
96	facing west from road		
97	overview facing west		
98	view of east side		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

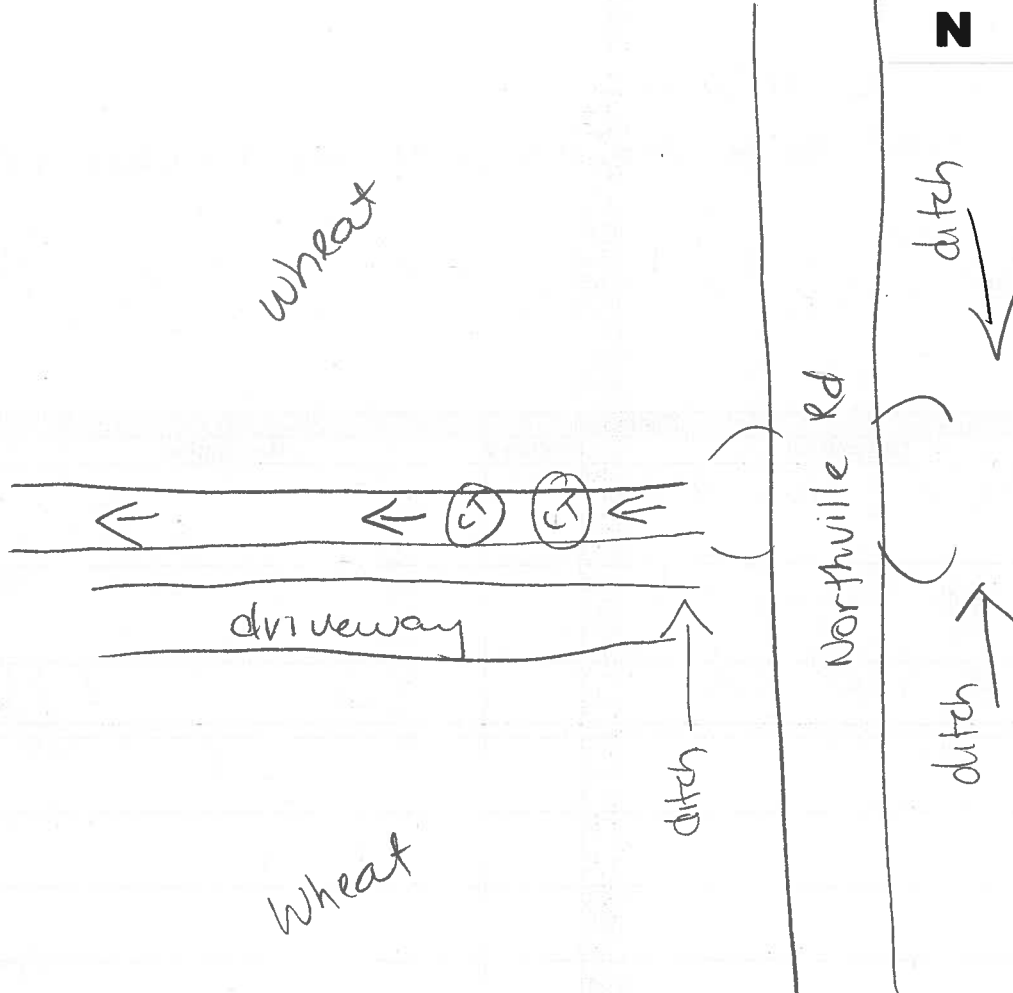
Bluewater

Land Parcel#

JER3428

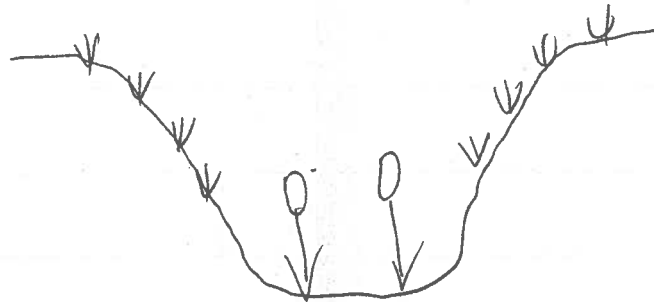
Site ID

R6.18 A



LEGEND	
→	10d depth (cm)
→	9w width
→	Riffle
→	Run/Glide
○	Pool
■	Island/Bar
■	Fine Substrate
###	Gravel Substrate
oOooO	Cobble/Boulder
***	Debris
CT	Cattail
SV/FV	Submerg/Float Veg
EV	Emergent Vegetation
W	Watercress
Fe	Iron Staining
	Eroded Bank
xxx	Riprap / Other Stabilization
○	Instream Log/Tree
AAA	Dam/Weir/ Obstruction
⊗	Riparian Tree
↳	Seep/Spring
—	Undercut Bank
—	Barrier to Fish Movement
—S—	Seasonal Barrier
-x-x-	Fence line
□	Culvert

Horizontal View of Channel



Initial QA/QC By:

L. Bentley

Date:

May 30, 2012

Technical QA/QC By:

M

Date:

7th June 2012

Assessment of Non-Water Body
(update to mapping required)

R6A

AECOM		Page 1 of 2	
General Information			
Study Area: <u>Jericho</u>	<u>Goshen</u>	<u>Bluewater</u>	Land Parcel# <u>JP R3425</u> Site ID: <u>R6-JPR3425</u>
Date: <u>MAY 17/12</u>	Start time: <u>09:15 AM</u>	End Time: <u>09:30 AM</u>	
Weather Conditions: <u>sunny, 12°C</u>		Field Crew: <u>S. LOHNES J. EPP</u> Field Notes By: <u>S. LOHNES</u>	
Site Location			
South off Petticoat Lane, west of Jericho.			
UTM Co-ordinates			
Easting: _____	Northing: _____	Description: _____	
Easting: _____	Northing: _____	Description: _____	
Easting: _____	Northing: _____	Description: _____	
Easting: _____	Northing: _____	Description: _____	
Surrounding Land Use Residential ☐ Meadow ☐ Agriculture ☒ Wetland ☐ Forest ☐ Livestock ☐ Other _____		Ground Water and Seepage Indicators Watercress ☐ Bank Seepage ☐ Iron Staining ☐ None ☒ Bubbling ☐ _____	
Description: <u>row crops.</u>		Details: _____	
Feature Description			
Is the mapped water body any of the below:			
1) a grassed waterway? Y <u>N</u>			
2) Temporary channel for surface drainage, that can be tilled or driven through? Y <u>N</u>			
3) Rock chutes or spillways? Y <u>N</u>			
4) Roadside ditches that are not connected or do not contain a permanent or intermittent stream? Y <u>N</u>			
5) Temporarily ponded areas that are normally farmed? Y <u>N</u>			
6) Artificial bodies of water intended for storage, treatment for farming purposes? Y <u>N</u>			
8) Any other: _____			
Description: (i.e. length of change, if it reappears, if there is evidence of water)			
ploughed through, no water body as mapped			
Photo log			
Picture #	Description	Picture #	Description
1	sheet		
2	field w/ no w/c		

Assessment of Non-Water Body
(update to mapping required)

AECOM

Date: MAY 17 12

Land Parcel/Site ID:

JER 3425 (R6A) Page 2 of 2

Site Sketch



JER 3423

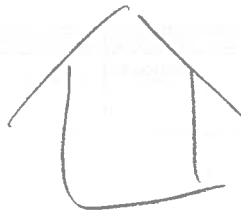


hedge row/
property line

JER 3425

mapped, but
not present

Petticoat Lane



Initial QA/QC: C. Bentley May 22, 2012

Sutton Jun 11/12

Property ID: JER 3425 Date: MAY 17/12

Property Access: on foot, off Start Time: 09:30 AM
Petticoat Lane End Time: 09:35 AM

Field Investigators: SLOANES J-EPP Weather: SUNNY, 12°C

Terrestrial Feature Present: No ☐ Yes ☐

Provide brief description of observations (i.e. hedgerow, treerow, woodlot, valleylands, deciduous vs coniferous, crop)

Photograph Numbers: _____

Aquatic Feature Present: No ☒ Yes ☐

Provide brief description (i.e. drainage ditch, watercourse, intermittent, permanent)

depression in topography on
agricultural field - no water/dry.

Photograph Numbers: _____

Water Bodies Assessment Field Collection Form

Page 1 of 4

AECOM

General Information

Study Area: <u>Jericho</u>	Goshen	Bluewater	Land Parcel# <u>JER1805</u>	Site ID: <u>R8, 12 B</u>
Date: <u>May 24/12</u>	Start time: <u>13:05</u>	End Time: <u>14:00</u>		
Weather Conditions: <u>Sunny, 23°C</u>		Field Crew: <u>C. Barros, J. Epp</u>		
		Field Notes By: <u>C. Barros</u>		

Site Location

Warwick Village Rd, south of T. Road Ln.

UTM Co-ordinates (continue on page 3 if necessary)

Easting: <u>422870</u>	Northing: <u>4771089</u>	Description: <u>R8, 12 JER1805</u>
Easting: <u>422836</u>	Northing: <u>4771097</u>	Description: <u>R8, 12 JER1805</u>
Easting: <u>422785</u>	Northing: <u>4771096</u>	Description: <u>R8, 12 JER1805</u>
Easting:	Northing:	Description:

Surrounding Landuse Residential ☐ Agriculture ☐ Forest ☒ Other ☐ Description: <u>>20m on each side</u>	Type of Watercourse Intermittent ☐ Permanent ☒ Ephemeral ☐ Channelized ☒ Natural Channel ☒ Description: <u>old channelized stream naturally</u>
--	--

Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow)

Yes - tile drain flowing close to road

Is any portion of the water body underground or not as mapped? Y (N)

If Yes describe:

GPS Coordinate: Easting -

Northing -

Description -

Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)

flat

In-Situ Water Quality

WT (°C): <u>15.30</u>	AT (°C): <u>23</u>
pH: <u>6.13</u>	Cond (µs/cm): <u>612</u>
D.O. (mg/L) <u>14.7</u>	
Water Clarity: Clear ☒ Turbid ☐	
Water Colour: <u>n/a</u>	

Ground Water and Seepage Indicators

Watercress ☐	Bank Seepage ☐
Iron Staining ☐	None ☒
Bubbling ☐	
Other ☐	

Details:

Notes: wg taken in pool 0.15m

Water Bodies Assessment Field Collection Form

Stream Morphology																		
Site Length (m): 60m		Bank Stability:																
Channel Dimensions		<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>			Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable														
Left Bank	☒	☐	☐	☐														
Right Bank	☒	☐	☐	☐														
Mean Wetted Width (m): 1.3	Mean Wetted Depth (m): 0.15	Description: not masses along bank																
Mean Bankfull Width (m): 1.85	Mean Bankfull Depth (m): 0.25																	
Mean Top of Bank Width (m): 4	Mean Top of Bank Depth (m): 1.5																	
Flow Description: (high or low flow conditions, stagnant, etc)																		
slow flow, low gradient																		
Substrate (< = >)		Habitat																
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus	Description mk = sized > sa > co > bo	<table border="1" style="width: 100%; text-align: center;"> <tr> <th colspan="4">Morphological Structure (%)</th> </tr> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td></td> <td>2</td> <td></td> <td>98</td> </tr> </table>		Morphological Structure (%)				Pool	Riffle	Run	Flat		2		98			
Morphological Structure (%)																		
Pool	Riffle	Run	Flat															
	2		98															
		Notes: result of debris jams + low water level on cobble																
Instream Cover (%) 70																		
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None	Undercut Banks												
/	8	2	15	45	/	Average Depth: / (% Cover)												
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																		
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.)																		
algae - attached - filamentous																		
Canopy Cover (% closed cover):				Types of Cover (% cover)														
100-90%	☒	30-1%	☐	Trees	90	Shrubs												
90-60%	☐	0%	☐	Grasses		Herbaceous												
60-30%	☐					Man-made structures												
						Other												
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																		
Notes: (vegetation species, types of structures)																		
Basswood, ash, maple, hawthorn																		
Riparian Vegetation				Riparian Vegetation														
Width and Description of riparian vegetation: LB - 720m - forest				RB - 720m forest														
Overhanging Vegetation Present (Y) / N				% Overhanging Vegetation: 5														
Description of Overhanging Vegetation:																		
small patch of overhanging dogwood																		
Obstructions to Fish Passage																		
None Observed	☒	Man-Made	☐	Natural	☐	Low Flow Barrier												
Description of Barrier:																		
/																		
Height of Barrier (m)				GPS Coordinates:														
/																		

Water Bodies Assessment Field Collection Form

AECOM

Date: May 24/12

Land Parcel/Site ID: JER 1805

Page 3 of 4

R012 B

Other General Comments Regarding the Study Area:

- Cyprinids observed
- chimney crayfish home
- 2 km part study area watercourse is similar
Watercourse appears to have been previously dug
and is now naturalizing. Straight, muddy
bottom, canopy cover high - trees

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
1a	sheet		
1b 3	at road looking N		
4	culvert		
5	tire drain input		
6-15	channel overview		
16	chimney crayfish home		
17 17	channel		
18	part study area		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

Jericho

Goshen

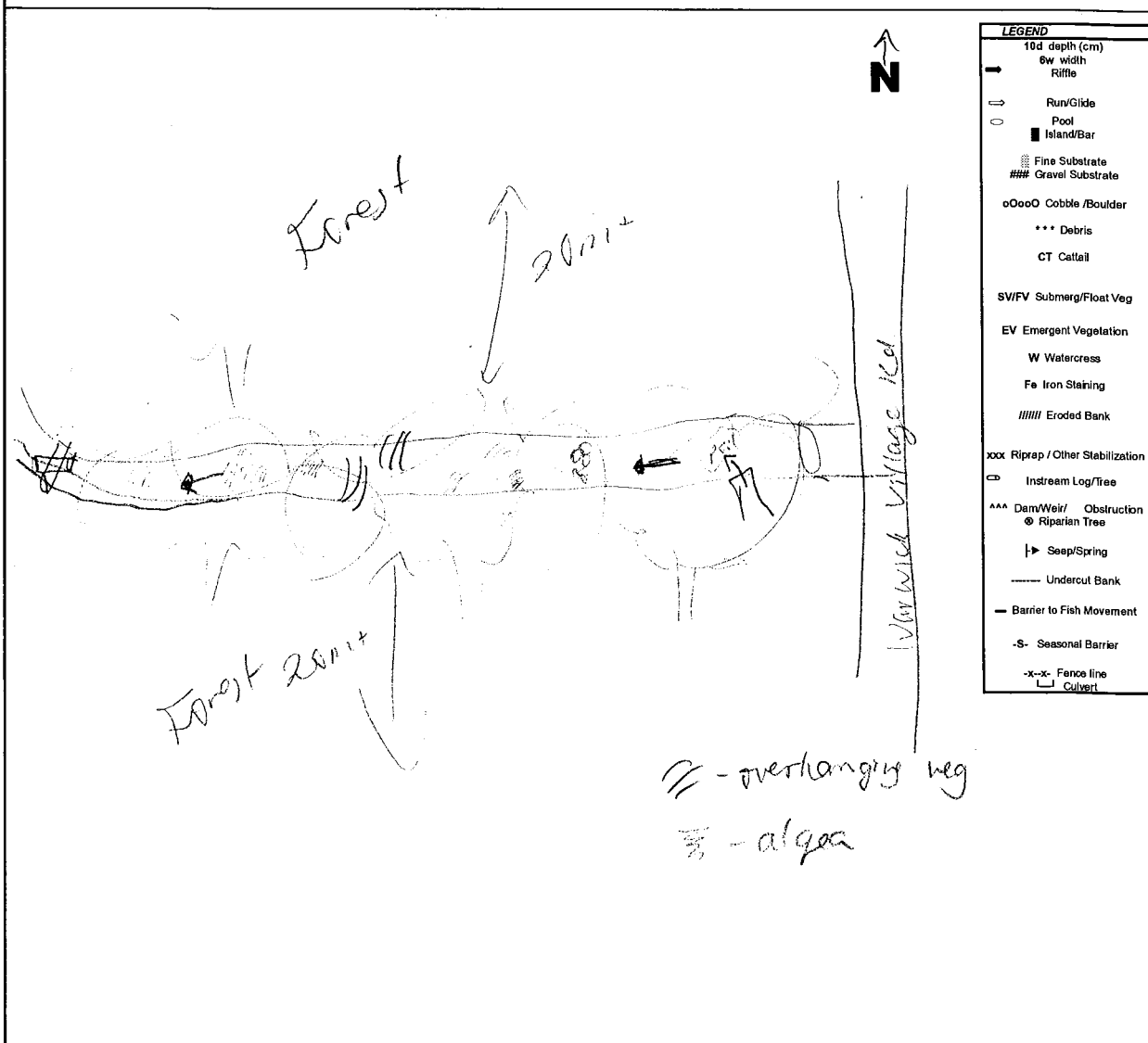
Bluewater

Land Parcel#

JER1805

Site ID

R8.12 B.



Horizontal View of Channel



Initial QA/QC By:

L. Bentley

Date:

May 30, 2012

Technical QA/QC By:

Shutka

Date:

June 11/12

**Assessment of Non-Water Body
(update to mapping required)**

AECOM		Page 1 of 2	
General Information			
Study Area: <u>Jericho</u>	<u>Goshen</u>	<u>Bluewater</u>	Land Parcel# <u>SER 1766/1747</u> Site ID: <u>R8.12A</u>
Date: <u>May 24/12</u>	Start time: <u>12:50</u>	End Time: <u>13:30</u>	
Weather Conditions: <u>Sunny, 23°C</u>		Field Crew: <u>C. Boros, T. ERP</u>	
		Field Notes By: <u>C. Boros</u>	
Site Location			
<u>Warwick Village, South of Townsend Line</u>			
UTM Co-ordinates			
Easting: <u>422877</u>	Northing: <u>4771086</u>	Description: <u>R8.12 ^{Top} 1766</u>	
Easting:	Northing:	Description:	
Easting:	Northing:	Description:	
Easting:	Northing:	Description:	
Surrounding Landuse Residential ☐ Meadow ☐ Agriculture ☒ Wetland ☐ Forest ☐ Livestock ☐ Other ☐		Ground Water and Seepage Indicators Watercress ☐ Bank Seepage ☐ Iron Staining ☐ None ☒ Bubbling ☐	
Description: <u>corn field</u>		Details:	
Feature Description			
Is the mapped water body any of the below:			
1) a grassed waterway?		Y ☒ N ☐	
2) Temporary channel for surface drainage, that can be tilled or driven through?		Y ☐ N ☒	
3) Rock chutes or spillways?		Y ☐ N ☒	
4) Roadside ditches that are not connected or do not contain a permanent or intermittent stream?		Y ☐ N ☒	
5) Temporarily ponded areas that are normally farmed?		Y ☐ N ☒	
6) Artificial bodies of water intended for storage, treatment for farming purposes?		Y ☐ N ☒	
8) Any other:		<u>Buried</u>	
Description: (i.e. length of change, if it reappears, if there is evidence of water)			
<u>Most likely buried channel -> rockpile and evidence of flow at road end</u>			
Photo log			
Picture #	Description	Picture #	Description
<u>1a</u>	<u>shell</u>		
<u>2-3</u>	<u>roadside</u>		

Assessment of Non-Water Body
(update to mapping required)

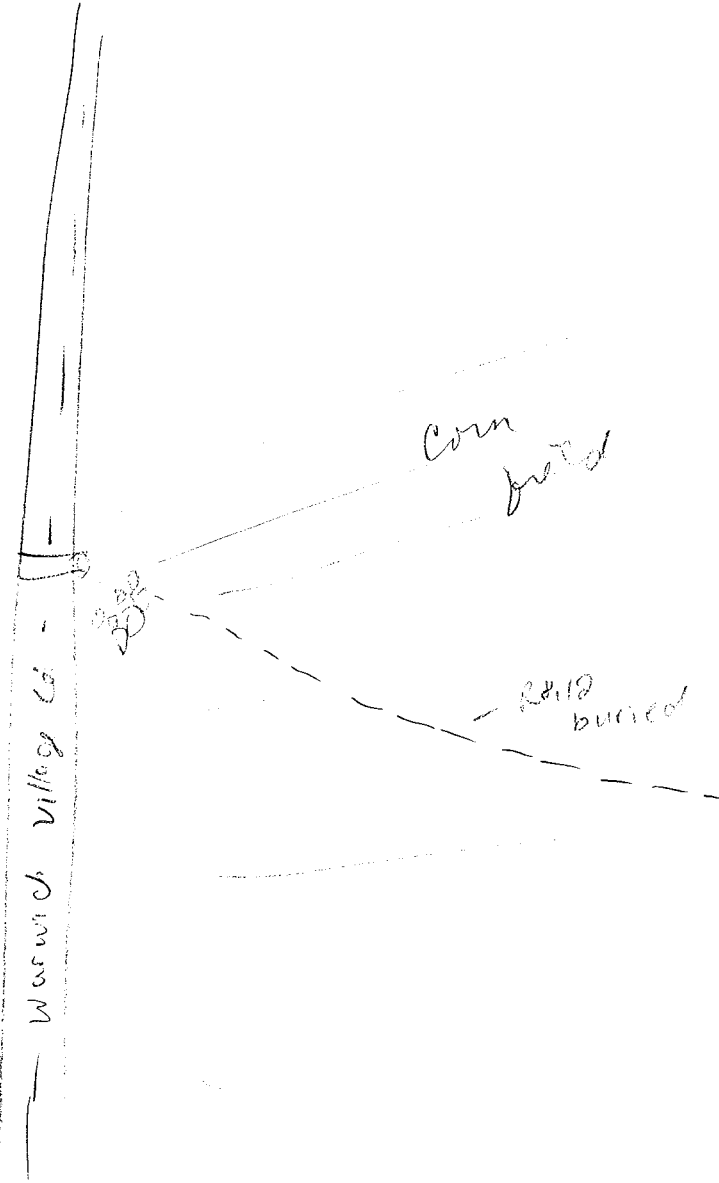
AECOM

Date: May 24/12

Land Parcel/Site ID: JFR-1766A747 RB.12

Page 2 of 2

Site Sketch



Initial WA/BC L. Barley May 30, 2012

Sarkis June 11/12

Water Bodies Assessment Field Collection Form

AECOM		Page 1 of 4	
General Information			
Study Area: <u>Jericho</u>	<u>Goshen</u>	<u>Bluewater</u>	Land Parcel# <u>JER3245</u> Site ID: <u>R8.10</u>
Date: <u>MAY 29/12</u>	Start time: <u>11443</u>	End Time: <u>1200</u>	
Weather Conditions: <u>low RAIN</u>		Field Crew: <u>S DAVAICHE, S Harding</u>	
		Field Notes By: <u>S DAVAICHE</u>	
Site Location			
<u>on north of Jura line</u>			
UTM Co-ordinates (continue on page 3 if necessary)			
Easting: <u>422568</u>	Northing: <u>4773490</u>	Description: <u>R8.10</u>	
Easting: <u>422629</u>	Northing: <u>4772869</u>	Description: <u>R8.10 END</u>	
Easting: _____	Northing: _____	Description: _____	
Easting: _____	Northing: _____	Description: _____	
Surrounding Landuse Residential ☐ Agriculture ☒ Forest ☐ Other ☐ Meadow ☐ Wetland ☐ Livestock ☐		Type of Watercourse Intermittent ☐ Permanent ☒ Ephemeral ☐ Channelized ☒ Natural Channel ☐	
Description: <u>rop and winter hatching</u>		Description: _____	
Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow)			
<u>Not observed</u>			
Is any portion of the water body underground or not as mapped? <u>Y/N</u>			
If Yes describe: _____			
GPS Coordinate: Easting -		Northing - Description -	
Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)			
<u>Flat Field</u>			
In-Situ Water Quality		Ground Water and Seepage Indicators	
WT (°C): _____	AT (°C): <u>20.1</u>	Watercress ☐	Bank Seepage ☐
pH: _____	Cond (s/cm): _____	Iron Staining ☐	None ☒
D.O. (mg/L) _____		Bubbling ☐	_____ ☐
Water Clarity: Clear ☒ Turbid ☐		Other ☐	
Water Colour: <u>none taken</u>		Details: _____	
Notes: <u>Not enough of water</u>			

Water Bodies Assessment Field Collection Form

Stream Morphology																		
Site Length (m): <u>525m</u>		Bank Stability:																
Channel Dimensions		<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Stable</td> <td>Slightly unstable</td> <td>Moderately unstable</td> <td>Unstable</td> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>			Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable														
Left Bank	☒	☐	☐	☐														
Right Bank	☒	☐	☐	☐														
Mean Wetted Width (m): <u>0.30</u>	Mean Wetted Depth (m): <u>0.05</u>	Description: <u>Vegetated</u>																
Mean Bankfull Width (m): <u>1.50</u>	Mean Bankfull Depth (m): <u>0.75</u>																	
Mean Top of Bank Width (m): <u>4.50</u>	Mean Top of Bank Depth (m): <u>2.00</u>																	
Flow Description: (high or low flow conditions, stagnant, etc)																		
<u>Very low flow. have ^{some} dry section</u>																		
Substrate (<=>)		Habitat																
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus	Description: <u>Si</u>	<table border="1" style="width: 100%; text-align: center;"> <tr> <th colspan="4">Morphological Structure (%)</th> </tr> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td></td> <td></td> <td><u>100</u></td> <td></td> </tr> </table>		Morphological Structure (%)				Pool	Riffle	Run	Flat			<u>100</u>				
Morphological Structure (%)																		
Pool	Riffle	Run	Flat															
		<u>100</u>																
		Notes:																
Instream Cover (%)																		
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None	Undercut Banks												
<u>60</u>						Average Depth: (% Cover) <u> </u>												
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100%																		
*Aquatic Vegetation Species Present (algae, submergent, emergent etc.)																		
<u>NON Aquatic vegetation, grasses</u>																		
Canopy Cover (% closed cover):				Types of Cover (% cover)														
100-90% ☐	30-1% ☐	Trees <u>30</u> Shrubs <u>5</u> Man-made structures <u> </u>																
90-60% ☐	0% ☐	Grasses <u>5</u> Herbaceous <u> </u> Other <u> </u>																
60-30% ☒																		
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100%																		
Notes: (vegetation species, types of structures) <u>essentially near the forest section</u>																		
<u>OAK, SALIX shrubs, Walnut</u>																		
Width and Description of riparian vegetation:		Riparian Vegetation																
LB - <u>3m without the forest section</u>		RB - <u>3m</u>																
Overhanging Vegetation Present <u>0/N</u> % Overhanging Vegetation: <u>10%</u>																		
Description of Overhanging Vegetation: <u>trees and shrubs</u>																		
Obstructions to Fish Passage																		
None Observed ☒	Man-Made ☐	Natural ☐	Low Flow Barrier ☒															
Description of Barrier: <u>AT the moment of the assessment</u>																		
Height of Barrier (m) <u>→ Dry section</u> GPS Coordinates: <u> </u>																		

Water Bodies Assessment Field Collection Form

AECOM

Date:

MAY 29/12

Land Parcel/Site ID:

JER 3245

Page 3 of 4

R8.10

Other General Comments Regarding the Study Area:

- the section of forest have oak and walnut.
- have a little dry section in stream
- WEAR JURA line
- colonised by grasses
- Straight stream
- Field section contained no shade

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
1037	R8.10 (From) FACING SOUTH		
1038	coldest R8.10		
1039	Vegetation in stream FACING NORTH		
1040	P1 FACING SOUTH		
1041	NOAR Forest section FACING SOUTH		
1042	" FACING NORTH		
1043	FACING SOUTH to JURA line		
1044	FACING NORTH from JURA line		

Water Bodies Assessment Field Collection Form

AECOM

Page 4 of 4

Watercourse Sketch

Study Area:

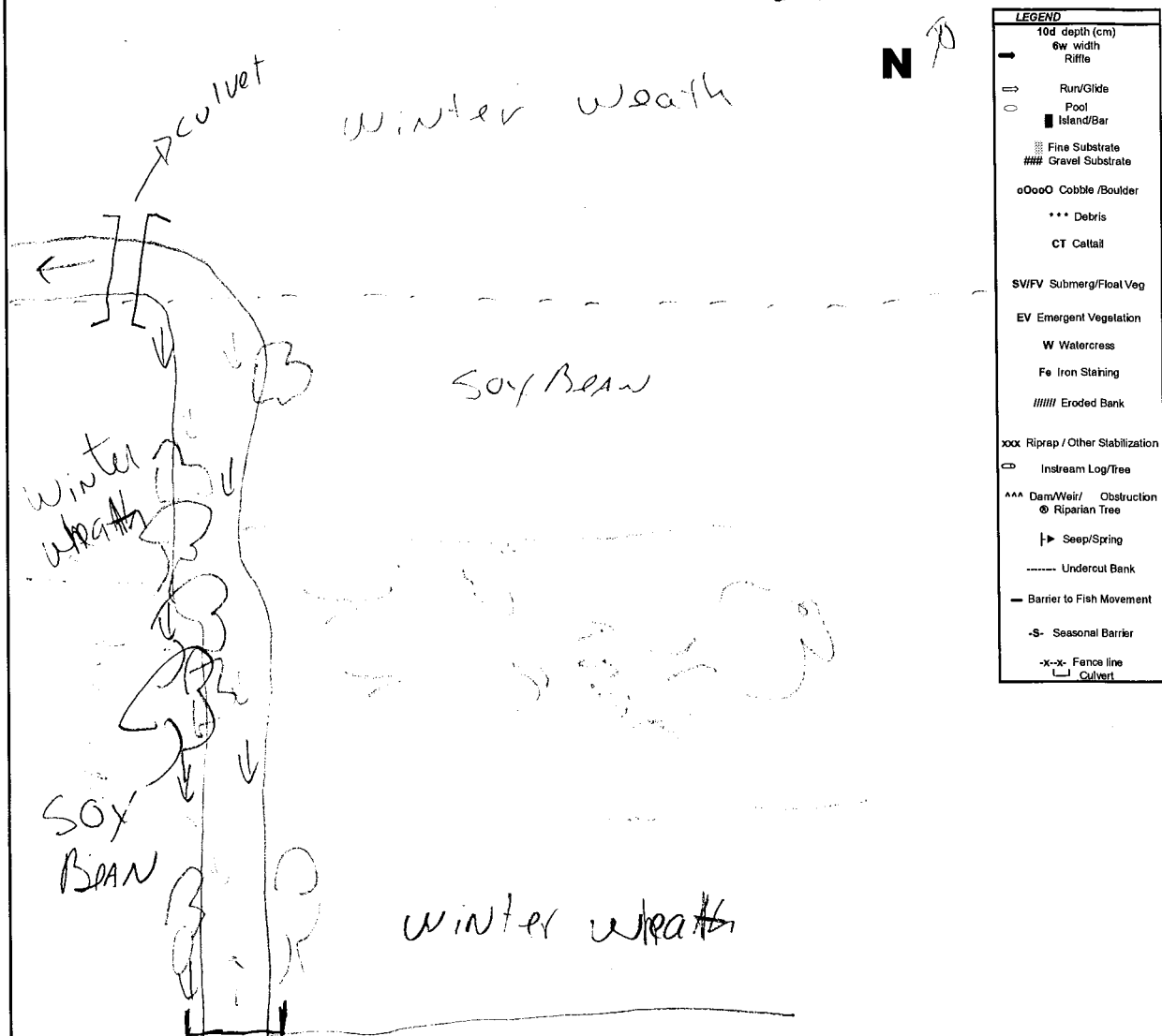
Jericho

Goshen

Bluewater

Land Parcel#

Jer 3245 Site ID
R8.10



Horizontal View of Channel

SURF line

Initial QA/QC By: L. Bentley

Date: June 4, 2012 Technical QA/QC By:

Date:

Water Bodies Assessment Field Collection Form

AECOM		Page 1 of 4	
General Information			
Study Area: <u>Jericho</u>	<u>Goshen</u>	<u>Bluewater</u>	Land Parcel# <u>JER3225</u> Site ID: <u>R8.10</u>
Date: <u>MAY 29/12</u>	Start time: <u>11h43</u>	End Time: <u>13:10</u>	
Weather Conditions: <u>Covered</u> <u>20°C</u>		Field Crew: <u>S DAMICHG, Q Harding</u> Field Notes By: <u>S DAMICHG</u>	
Site Location			
<u>West of Kinnard Rd</u> <u>North of JURA line</u>			
UTM Co-ordinates (continue on page 3 if necessary)			
Easting:	Northing:	Description: <u>None</u>	
Easting:	Northing: <u>Start</u>	Description: <u>See map</u>	
Easting: <u>422568</u>	Northing: <u>4773490</u>	Description: <u>R8.10 (End Fencing)</u>	
Easting:	Northing:	Description:	
Surrounding Landuse Residential ☐ Meadow ☐ Agriculture ☒ Wetland ☐ Forest ☐ Livestock ☐ Other ☐		Type of Watercourse Intermittent ☐ Channelized ☒ Permanent ☒ Natural Channel ☐ Ephemeral ☐	
Description: <u>CONN on RB</u> <u>Winter weath on LB</u>		Description:	
Notes: (include any inputs into the system i.e. tile drainage, seepages, overland flow) <u>None</u>			
Is any portion of the water body underground or not as mapped? Y / <u>N</u> If Yes describe:			
GPS Coordinate: Easting - Northing - Description-			
Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)			
<u>Flat</u>			
In-Situ Water Quality		Ground Water and Seepage Indicators	
WT (°C):	AT (°C): <u>20.1</u>	Watercress ☐	Bank Seepage ☐
pH:	Cond (s/cm):	Iron Staining ☐	None ☒
D.O. (mg/L)		Bubbling ☐	
Water Clarity: Clear ☒ Turbid ☐		Other ☐	
Water Colour: <u>ASA</u>		Details:	
Notes: <u>NONE TAKEN</u>			

ASA
3044 +
3005

Water Bodies Assessment Field Collection Form

Stream Morphology																				
Site Length (m): 550			Bank Stability:																	
Channel Dimensions			<table border="1"> <tr> <th></th> <th>Stable</th> <th>Slightly unstable</th> <th>Moderately unstable</th> <th>Unstable</th> </tr> <tr> <td>Left Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Right Bank</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>				Stable	Slightly unstable	Moderately unstable	Unstable	Left Bank	☒	☐	☐	☐	Right Bank	☒	☐	☐	☐
	Stable	Slightly unstable	Moderately unstable	Unstable																
Left Bank	☒	☐	☐	☐																
Right Bank	☒	☐	☐	☐																
Mean Wetted Width (m): 2.00	Mean Wetted Depth (m): 0.15	Description: vegetated																		
Mean Bankfull Width (m): 3.00	Mean Bankfull Depth (m): 0.35																			
Mean Top of Bank Width (m): 6.50	Mean Top of Bank Depth (m): 1.75																			
Flow Description: (high or low flow conditions, stagnant, etc) low flow																				
Habitat																				
Substrate (<=>)		Morphological Structure (%)																		
Description		<table border="1"> <tr> <th>Pool</th> <th>Riffle</th> <th>Run</th> <th>Flat</th> </tr> <tr> <td></td> <td></td> <td>100</td> <td></td> </tr> </table>				Pool	Riffle	Run	Flat			100								
Pool	Riffle	Run	Flat																	
		100																		
Bo - Boulder Co - Cobble Gr - Gravel Sa - Sand Si - Silt Cl - Clay MK - Muck DT - Detritus Si		Notes:																		
Instream Cover (%)																				
Other	Woody Debris	Boulders	Cobble	Aquatic Vegetation*	None	Undercut Banks														
Grass 30																				
Note: Low = 0 - 30%; Moderate = 30 - 75%; High = 75 - 100% *Aquatic Vegetation Species Present (algae, submergent, emergent) only Grasses N																				
Canopy Cover (% closed cover):				Types of																
100-90% ☐	30-1% ☒	Tree:																		
90-60% ☐	0% ☐	Grasses																		
60-30% ☐																				
Note: Low = 0 - 30%; Moderate = 30 - 60%; High = 60 - 100% Notes: (vegetation species, types of structures) Salix shrubs - deciduous																				
Width and Description of riparian vegetation:		Riparian Vegetation																		
LB -		RB -																		
Grasses, Wild Roses, Dogwood, S		Wild Raspberry																		
Overhanging Vegetation Present ☒ N % Overhanging Vegetation: 10																				
Description of Overhanging Vegetation: Salix sp. and Dogwood																				
Obstructions to Fish Passage																				
None Observed ☐	Man-Made ☐	Natural ☐	Low Flow Barrier ☒																	
Description of Barrier: High density of vegetation																				
Height of Barrier (m)			GPS Coordinates:																	

Water Bodies Assessment Field Collection Form

AECOM

Date:

MA/29/12

Land Parcel/Site ID:

3244

Page 3 of 4

Other General Comments Regarding the Study Area:

→ ASA ROAD survey and Fencing survey
 → High density vegetation in stream
 → low flow
 → Straight stream in field area

Additional UTM Coordinates:

Photo log

Picture #	Description	Picture #	Description
1031	Facing west From Kinnard Rd		
1032	" "		
1033	In the middle # 3245 Facing east		
1034	" " Facing west		
1035	Facing east		
1036	Facing west		

**Assessment of Non-Water Body
(update to mapping required)**

Page 1 of 2

AECOM

General Information

Study Area: Jericho Goshen Bluewater Land Parcel# JEE 2688 Site ID: R9A-~~2688~~
 Date: MAY 29/12 Start time: 14:00 End Time: (Field Section) 1545
 Weather Conditions: little sun/cloud - 23°C Field Crew: CHARDING & DANAICHE
 Field Notes By: S. DANAICHE

Site Location

EAST + WEST OF NOVOO ROAD

UTM Co-ordinates

none see MAP

Easting: _____	Northing: _____	Description: _____
Easting: _____	Northing: _____	Description: _____
Easting: _____	Northing: _____	Description: _____
Easting: _____	Northing: _____	Description: _____

Surrounding Landuse

Residential ☐	Meadow ☐
Agriculture ☒	Wetland ☐
Forest ☐	Livestock ☐
Other ☐	

Description: winter wheat (2688)
corn (2777)

Ground Water and Seepage Indicators

Watercress ☐	Bank Seepage ☐
Iron Staining ☐	None ☒
Bubbling ☐	

Details: none observed

Feature Description

Is the mapped water body any of the below:

- 1) a grassed waterway? Y N
- 2) Temporary channel for surface drainage, that can be tilled or driven through? Y N
- 3) Rock chutes or spillways? Y N
- 4) Roadside ditches that are not connected or do not contain a permanent or intermittent stream? Y N
- 5) Temporarily ponded areas that are normally farmed? Y N
- 6) Artificial bodies of water intended for storage, treatment for farming purposes? Y N
- 8) Any other:

Description: (i.e. length of change, if it reappears, if there is evidence of water)

- All planted (corn)
- No feature observed

Photo log

Picture #	Description	Picture #	Description
<u>1050+1</u>	<u>JEE 2688 winter wheat from NOVOO</u>		
<u>1052+53</u>	<u>JEE 2777 corn from NOVOO (west)</u>		
1053+54	JEE 2777 53+54 from NOVOO		

Assessment of Non-Water Body
(update to mapping required)

AECOM

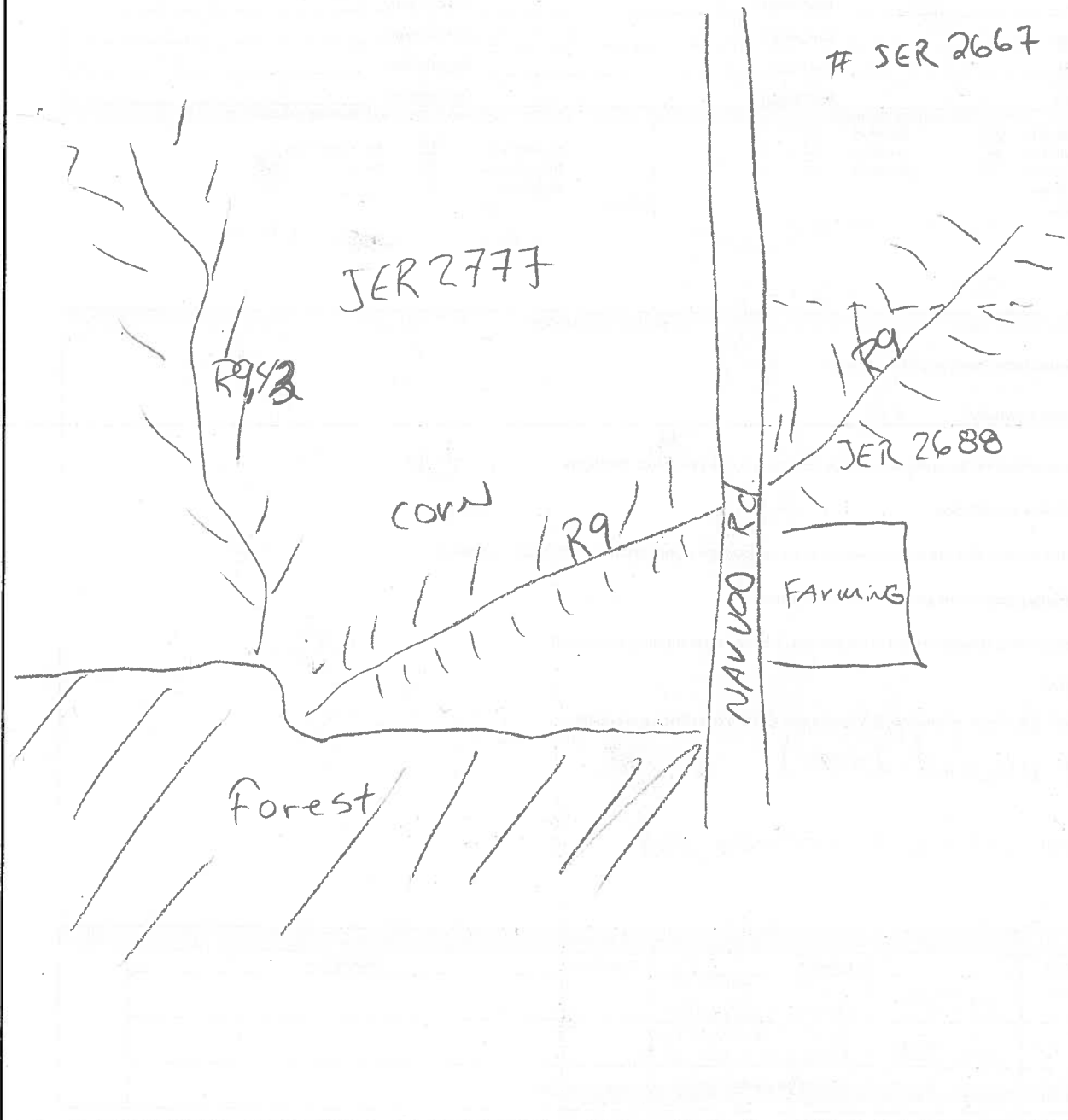
Date: MAY 29/12

Land Parcel/Site ID:

JER 2688-2777 / R9A29-43

Page 2 of 2

Site Sketch



Initial QA/QC: L. Bentley ~~June 4 2012~~
Saitkwa Oct 2/12

Water Bodies Assessment Field Collection Form

AECOM		Page 1 of 4	
General Information			
Study Area: <u>Jericho</u>	Goshen	Bluewater	Land Parcel# <u>JEK 1706</u> Site ID: <u>R98</u>
Date: <u>June 8/12</u>	Start time: <u>10:20</u>	<u>1724</u> <u>1736</u>	End Time: <u>11:30</u>
Weather Conditions: <u>Sunny, 18°C</u>		Field Crew: <u>C. Barros, S. Darai che</u>	
		Field Notes By: <u>C Barros</u>	
Site Location			
<u>First School Rd, South of Hickory Creek Line</u>			
UTM Co-ordinates (continue on page 3 if necessary)			
Easting: <u>424057</u>	Northing: <u>4768685</u>	Description: <u>R9J1706</u>	
Easting: <u>423781</u>	Northing: <u>4768693</u>	Description: <u>R9J1706 wq</u>	
Easting: <u>423450</u>	Northing: <u>4768764</u>	Description: <u>R9J1706 w.d</u>	
Easting:	Northing:	Description:	
Surrounding Landuse		Type of Watercourse	
Residential ☐	Meadow ☐	Intermittent ☐	Channelized ☒
Agriculture ☒	Wetland ☐	Permanent ☒	Natural Channel ☐
Forest ☒	Livestock ☐	Ephemeral ☐	☐
Other ☐			
Description: <u>forest to south</u> <u>soy bean to north</u>		Description: <u>straight</u>	
Notes: (Include any inputs into the system i.e. tile drainage, seepages, overland flow)			
<u>Tile drains observed - 1 flowing</u>			
Is any portion of the water body underground or not as mapped? <u>Y</u> <u>(N)</u>			
If Yes describe:			
GPS Coordinate Easting -		Northing - Description -	
Description of Land Topography Surrounding Water Body (rolling hills, sloping towards water body)			
<u>flat</u>			
In-Situ Water Quality		Ground Water and Seepage Indicators	
WT (°C): <u>18.9</u>	AT (°C): <u>22.9</u>	Watercress ☐ Bank Seepage ☐ Iron Staining ☐ None ☒ Bubbling ☐ ☐ Other ☐	
pH: <u>7.97</u>	Cond (µs/cm): <u>633</u>		
D.O. (mg/L) <u>8.41</u>			
Water Clarity: <u>Clear</u> ☒ Turbid ☐			
Water Colour: <u>n/a</u>		Details:	
Notes: <u>algae present in area,</u> <u>~0.10m w depth</u>			